HEALTH INDICATORS

Alberta's Report on Comparable Health Indicators

September 2002

A federal/provincial/territorial agreement on comparable health indicator reporting, reached by First Ministers in September 2000, and developed by Ministers of Health.

Alberta
HEALTH AND WELLNESS

Alberta's Report on Comparable Health Indicators

This report is available at the Alberta Health and Wellness web-site: www.health.gov.ab.ca

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Message from the Minister of Health and Wellness

I am pleased to present the first report on comparable health indicators to the people of Alberta.

In September 2000, First Ministers issued a *Communiqué* on Health in which they agreed to provide clear accountability reporting to Canadians, beginning in September 2002. Over the past two years, health ministries from all provinces, territories and the federal government have been working to select and report to the public on a set of comparable health indicators. This report is the result of that work.

Considerable effort has been required to develop the comparable indicators for these reports. For example, new data was collected so that jurisdictions could report on indicators of patient satisfaction, wait times for health services, and access to health services. In addition, existing data was used to develop new reporting on health outcome indicators, such as survival rates for heart attack and stroke.

These indicators and other new ones were developed for this report with support from Statistics Canada, the Canadian Institute for Health Information (CIHI) and Health Canada. Their support has been invaluable. I would also like to recognize the strong support of the Office of the Auditor General of Alberta, which has provided verification for the results we report. I count on the continued support of these organizations, and my colleagues in provincial, territorial and federal governments, to help us improve our reporting on health system performance.

Highlights of Alberta Results

The results in this report show Albertans have similar health status compared with the Canadian average, and that waiting for services in Alberta is also similar to the national average, as indicated through survey results. Our performance is better in comparison with the Canadian average in several areas. For example, Alberta has:

- lower hospital re-admission rates for acute myocardial infarction (heart attack);
- lower mortality rates for heart attack, colorectal cancer, and lung cancer in men;
- lower in-hospital mortality rates for heart attack and stroke;
- higher per capita rates for hip and knee replacement surgery; and
- lower potential years of life lost (PYLL) for lung cancer, colorectal cancer, heart attack, and stroke.

It is worthwhile to note that all these areas of relative success relate to the high quality of care provided by our health regions and our health service practitioners.

The results also identify some areas in which our results are below the Canadian average, and should be improved. For example, Alberta has:

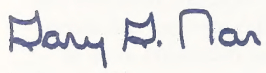
- a higher percentage of low birth weight babies;
- higher rates for some communicable diseases, such as E. coli and chlamydia;
- a higher rate of hospital admissions for certain health conditions which could be cared for in community settings; and
- higher potential years of life lost (PYLL) for injury and suicide.

The areas for improvement identified here are related to significant new directions for strategy development; health promotion; injury and disease prevention; and primary health care services. My Ministry is committed to making progress in these areas.

Future Reporting

Alberta's Report on Comparable Health Indicators, and similar reports by all provinces, territories, and the federal government, are very significant for the health system in Alberta and Canada. They mark the first time that all health ministries have reported to their people at the same time on a set of comparable health indicators. Comparable reporting provides a basis for consistent comparison among jurisdictions on a broad range of indicators. These reports will be of value to governments, the public, and health professionals, especially in discussions of health system improvement and reform in Canada.

These reports are the first step toward regular health system performance reporting by all jurisdictions in Canada. Federal, provincial, and territorial governments have agreed to report on comparable indicators every two years. Some indicators are still under development or have other limitations, as noted in this report. Between now and the next report in 2004, Alberta is committed to working with other health ministries to address the gaps in reporting, to improve the quality and relevance of existing indicators, and to develop our capacity to report to Albertans on indicators of health and health system performance.



Gary G. Mar, Q.C.
Minister of Health and Wellness

AUDITOR GENERAL *Alberta*

REPORT OF THE AUDITOR GENERAL ON THE RESULTS OF APPLYING SPECIFIED AUDITING PROCEDURES TO ALBERTA'S REPORT ON COMPARABLE HEALTH INDICATORS

To the Minister of Health and Wellness:

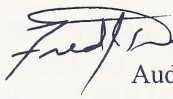
I have performed the following procedures in connection with Alberta's Report on Comparable Health Indicators September 2002 (the Report):

1. verified that reported information obtained from Statistics Canada, the Canadian Institute for Health Information, and Health Canada agreed with the stated sources.
2. verified that reported information originating within the Department of Health and Wellness (the Department) agreed with the reports from the systems used to develop the information.
3. tested the calculations that convert source report information into reported indicator results.
4. verified compliance of the Report with the reporting recommendations approved by the Conference of Deputy Ministers of Health. The reporting requirements are documented in the Performance Indicators Reporting Committee Plan (PIRC) for Federal/Provincial/Territorial Reporting on 14 Indicator Areas dated July 22, 2002.

As a result of applying the above procedures, I found no exceptions for procedures 1, 2 and 3. However, I found three exceptions for procedure 4:

1. PIRC states that the indicator for infant mortality must take into account trends in survival of infants with birth weight less than 500 grams. The Report does not include information on these infants.
2. Alberta reports the average wait times for radiation therapy for breast and prostate cancer and not the median wait times as required. Although there is a general note about data comparability, PIRC requires that any deviations from reporting requirements for these indicators be disclosed. The Report does not disclose there has been a deviation from the required method of reporting.
3. PIRC requires for the indicator of *Estimated number of months to clear current wait list for hip and knee replacement* that the Report disclose the method used to identify the date on which the decision to proceed with surgery was made. Such information on the method is not disclosed in the Report because the Department believes this information is not relevant to the calculation of the indicator.

The specified auditing procedures do not constitute an audit of the health indicators and therefore I express no opinion on Alberta's Report on Comparable Health Indicators.



CA
Auditor General

Edmonton, Alberta
September 20, 2002

AUDITOR GENERAL Alberta

Purpose of the report

Alberta's Report on Comparable Health Indicators is one of a group of similar reports produced by Canada's provincial, territorial and federal governments. Their purpose is to provide Canadians with reliable information about the health of the population and the performance of the health system.

These reports mark the first time that health ministries from all provinces, territories and the federal government have reported to their residents concurrently on a set of comparable health indicators. This reporting enables, for the first time, a basis for consistent comparison among jurisdictions on a broad range of indicators. These reports should be of value to governments, researchers and the public, especially in their discussions of health system improvement and reform in Canada. Whether the discussion is about health status and the prevention of disease or the quality of health services and results, these reports offer important and enlightening facts.

They also mark the beginning of a process that will improve the capacity of all jurisdictions to report on health indicators. There are currently some gaps in reporting. Some jurisdictions are unable to report on some indicators and there are other indicator areas that require the development of new data before we can achieve comprehensive reporting. These publications are Canadian governments' first step in their commitment to report on a regular basis to the people of Canada, and to improve on their ability to report on comparable health indicators in the future.

The set of health indicators included in this report does not cover all aspects of the health system in Canada. For example, the 14 indicator areas do not address issues such as finance, expenditures, health service facilities or the health professions. Only a few determinants of the health of the population are included. However, there are other recent publications that cover these topics: *Health Care in Canada 2002* (Canadian Institute for Health Information) and *Toward a Healthy Future:Second Report on the Health of Canadians* (Conference of Deputy Ministers of Health, 1999).

Background

In September 2000, Canada's First Ministers issued a communiqué on health in which they agreed to provide clear accountability reporting to Canadians. The First Ministers directed Ministers of Health to develop a comprehensive framework with jointly-agreed on comparable indicators in 14 areas that would address health status, health outcomes and quality of service. The Health Ministers were also directed to provide comprehensive and regular public reporting on these indicators. In response, the Health Ministers established a federal/provincial/territorial committee to reach an agreement on the health indicators in the 14 required areas.

Each of the participants, including Canada's Minister of Health, agreed to publish a report on these indicators in September 2002. These reports are the first to include jointly-agreed on comparable indicators addressing health status, health outcomes and quality of service.

The development process included consultations with health ministries, health information experts, health researchers and health professionals. Criteria for selection of the comparable indicators included relevance for a public audience and focus of public concerns; technical quality of the information, including validity and reliability; comparability of existing information; and the ability to report by September 2002.

Notes

Data: Many of the indicators reported in the body of the report are presented visually, but without the data values. The data used to create the graphs are reported in Appendix A.

Sources: Data sources are noted below each graph or table, along with notes concerning major data limitations. Appendix B provides direction to more detailed sources used for this report.

Analysis: Alberta results are presented with results for Canada whenever comparable data are available. Important differences are noted in the report, but with no supporting analysis to explain these differences. Such analysis would require additional information and research, and is beyond the scope of this report.

Comparisons: Comparisons with other provinces or territories are not included in this report, even though comparable data exist. Readers interested in making these comparisons can access the comparable health indicator reports from other jurisdictions, or from the sources identified in Appendix B.

Comparative data are new, and appropriate methods for comparative analysis have not been developed or tested. At this early stage, it is more useful to focus on the development of descriptive information rather than on comparative analysis.

Completeness: At time of publication, Alberta could not report on some of the indicators identified by the federal/provincial/territorial agreement on comparable health indicator reporting. The exceptions are noted in the text.

Management's responsibility

Responsibility for the integrity of *Alberta's Report on Comparable Health Indicators* rests with the Minister of Health and Wellness. In preparing the report, the Deputy Minister and management of Alberta Health and Wellness have relied on information provided by external organizations, as indicated in the report. To the best of our knowledge the information is reliable and free from error; however, we are also aware that health indicators data need to be improved. This report is consistent with all significant requirements for reporting on comparable health indicators, as agreed by Deputy Ministers of Health, and significant departures from the agreement are noted in the report.

Acknowledgements

The Performance Indicators Reporting Committee, chaired by Alberta, managed the process that led to the agreement on comparable health indicators. Statistics Canada, the Canadian Institute for Health Information (CIHI) and the Deputy Ministers of Health advisory committees on health services and population health provided significant advice and support to the process. Statistics Canada and CIHI contributed to the technical development of indicators, provided comparable data, and developed new data specifically for this project.

Introduction

The health status indicators reported in this section are generally accepted measures of the health of a population. Indicators such as life expectancy, infant mortality and low birth weight have been recognized by demographers internationally as measures of the health status of a population, and are generally available for most countries.

Population health status is related to many factors, including the quality and availability of health services. It is also strongly related to socio-economic factors such as education, employment, income and the physical environment.

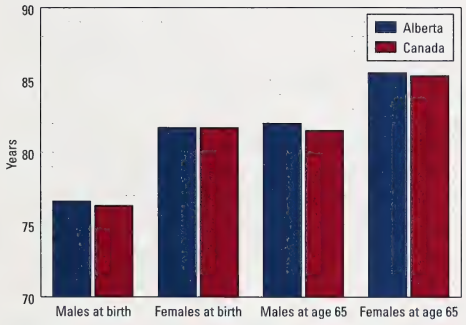
In recent years new indicators of population health status have been developed and are becoming widely accepted. Indicators such as disability-free life expectancy and self-reported health status have broadened the scope of population health measures from a reliance on birth and death statistics.

Life expectancy

Definition: The number of years a person would be expected to live, starting from birth, or at age 65. This indicator is calculated from age-specific mortality statistics for a given observation period.

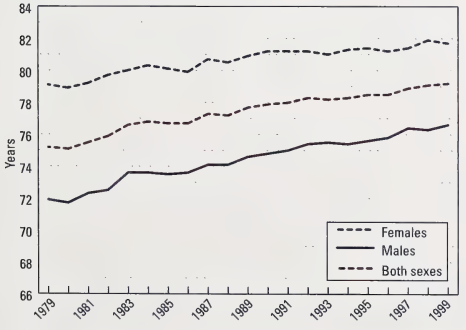
Life expectancy is a widely used indicator of the health of a population. In developed countries, life expectancy is higher for women than for men, and is related to socio-economic factors such as poverty and education levels.

Figure 1 - Life expectancy at birth and at age 65, Alberta and Canada, by gender, 1999



Source: Statistics Canada – Vital Statistics birth and death databases, Demography division (population estimates).

Figure 2 - Life expectancy at birth, by gender, Alberta, 1979-1999



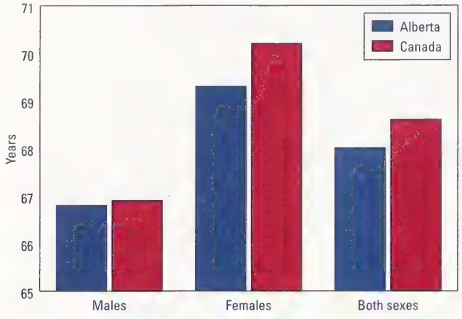
Source: Statistics Canada – Vital Statistics birth and death databases, Demography division (population estimates).

Results: In Canada and in Alberta both genders have long life expectancies with females predicted to out live males. Life expectancy in Alberta is slightly longer than the national average, both at birth and at age 65.

Over the last 20 years (1979-1999) life expectancy in Alberta has increased by 4.0 years and has increased more for men than for women. The difference in life expectancy between men and women in Alberta has decreased from about 7.2 years in 1979 to about 5.1 years in 1999.

Disability-free life expectancy (DFLE)

Figure 3 - Disability-free life expectancy at birth, in years, Alberta and Canada, 1996



Source: Statistics Canada – Vital Statistics birth and death database, Demography division, Canada census (for institutional population counts). Estimates of moderate or severe disability are derived from the 1996 Canada census.

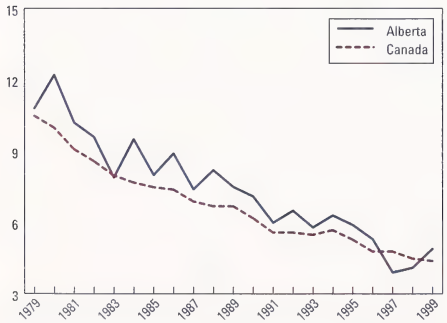
Definition: The number of years an average individual would be expected to live free of moderate or severe disability, starting from birth. This is calculated from age-specific mortality statistics and disability prevalence patterns by age and sex for a given observation period.

Life expectancy is an indicator of the quantity (length) rather than quality of life. Thus, life expectancy can increase in association with increased prevalence of serious debilitating disease. The DFLE indicator was developed to reflect the fact that not all years of a person's life are typically lived in perfect health. Chronic disease, frailty and disability tend to become more prevalent at older ages, so that a population with a higher life expectancy may not be healthier. Hence, DFLE is increasingly used as a population health indicator, complementing conventional life expectancy measures.

Results: In 1996, Albertans had slightly lower disability-free life expectancy than the Canadian average (68.0 years for Alberta versus 68.6 years for all Canadians). This difference is due to the lower DFLE for Alberta women.

Infant mortality

Figure 4 - Infant mortality rate per 1000 live births (of babies weighing more than 500 grams), Alberta and Canada, 1979-1999



Source: Statistics Canada – Vital Statistics birth and death databases.

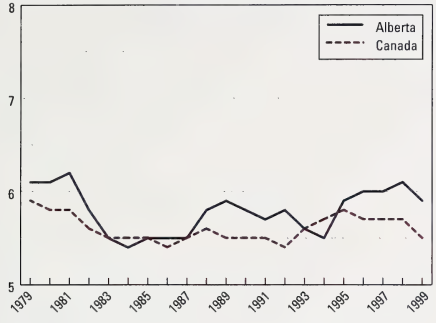
Definition: The number of infants who die in the first year of life, expressed as a rate (per 1,000 live births) for that year.

The infant mortality rate is a long-established measure of child health and a general indicator of the well-being of a society. It reflects on the health status and health care of a population, the effectiveness of preventive care and the attention paid to maternal and child health.

Results: In Alberta and Canada, the infant mortality rate has decreased over the last 20 years (1979-1999). Except for a few years, Alberta infant mortality is higher than the national average. In 1999 the Alberta rate was 4.9, compared to 4.4 for all of Canada.

Low birth weight

Figure 5 - Percentage of low weight births (500 to 2,499 grams), Canada and Alberta, 1979-1999



Source: Statistics Canada – Vital Statistics birth database.

Definition: The proportion of live births (birth weight known) with a birth weight of less than 2,500 grams and at least 500 grams.

Low birth weight is an indicator of the general health of newborns and a key determinant of infant survival, health and development. Low birth weight infants are at a greater risk of dying during the first year of life, and if they survive, they have a greater risk of disability and diseases.

Low birth weight can result from multiple births (twins, triplets, etc.), pre-term births, poor maternal health, maternal age, tobacco and alcohol use, and economic circumstances.

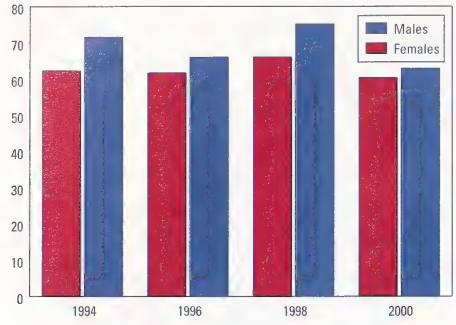
Results: Alberta generally reports percentages of low birth weight deliveries above Canadian levels. The percentages in Alberta declined in the early 1980s, but have increased in recent years. In 1999, the Alberta rate was 5.9, compared to 5.5 for all of Canada.

Self-reported health

Definition: The percentage of people aged 12 and over who report that their health is very good or excellent.

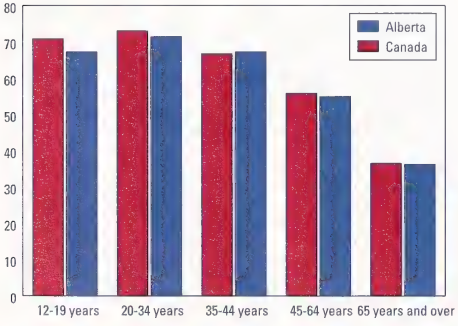
Self-reported health is a general indicator of the overall health status of individuals. It can include factors that other health indicators may miss such as incipient disease and disease severity and aspects of positive health status, social and mental function.

Figure 6 - Self-reported health (percentage reporting very good or excellent), Alberta, by gender, 1994, 1996, 1998, 2000



Source: Statistics Canada – Canadian Community Health Survey-Cycle 1.1(2000-01), National Population Health Surveys (1994-95 to 1998-99).
Note: Persons living on First Nations reserves and on Crown lands, residents of institutions, full-time members of the Canadian Armed Forces and residents of certain remote regions are excluded from the CCHS and NPHS samples.

Figure 7 - Self-reported health (percentage reporting very good or excellent), Alberta and Canada, by age, 2000



Source: Statistics Canada – Canadian Community Health Survey-Cycle 1.1(2000-01), National Population Health Surveys (1994-95 to 1998-99).
Note: See note to Figure 6.

Results: In 2000, 62.8 per cent of Alberta men and 60.3 per cent of Alberta women reported very good or excellent health. This was a decrease from levels reported in 1998. Compared to men, women are consistently less likely to report very good or excellent health.

In general, the percentage of people reporting very good or excellent health decreases with age. For younger age groups in 2000, Albertans reported slightly lower health status than Canadians, but there is no difference between Albertans and Canadians in the older age groups.

Introduction

This section includes indicators related in some way to public activity, living conditions or lifestyle factors that can affect health status. Communicable diseases are examples of diseases that arise from contact with the social or environmental conditions in which we live, and can often be effectively controlled through personal action and public health protection programs.

Use of tobacco, diet, and physical activity levels, can affect an individual's health, especially over the longer term. Smoking, poor diet and inactivity are risk factors associated with the later development of heart disease, diabetes and several cancers. Health promotion strategies focus on encouraging healthy behaviours now, to reduce the future risk of these diseases.

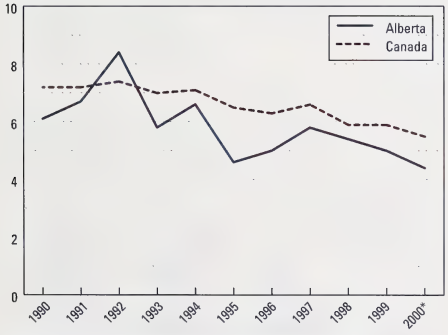
Communicable diseases

Tuberculosis incidence rate

Definition: The rate of *new* cases (also known as incidence) of infectious pulmonary tuberculosis (TB) reported in a calendar year.

TB is an important public health problem that has become more prominent in recent years. Occurrences of new cases (incidence) are linked to high-risk groups such as recent immigrants, First Nations communities and people also infected with HIV. Multiple drug resistance is also emerging as a problem for the treatment and control of TB.

Figure 8 - Tuberculosis incidence, rate per 100,000 population, Alberta and Canada, 1990-2000

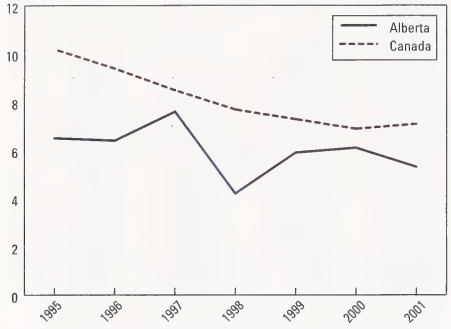


Source: Canadian tuberculosis reporting system (CTBRS).
* Data for 2000 are preliminary

Results: In Alberta and Canada as a whole, tuberculosis incidence rates have generally decreased in recent years. Incidence rates in Alberta tend to be slightly lower than the national incidence rate.

Reported HIV diagnoses

Figure 9 - Positive HIV test reports, rate per 100,000 population, Alberta and Canada, 1995-2001



Source: Health Canada – Division of HIV/AIDS Epidemiology and Surveillance.

Definition: Estimates of new diagnoses of HIV infection based on new reports of positive HIV tests.

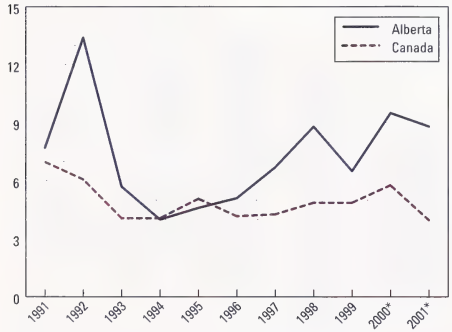
HIV is a blood-borne infection and a sexually transmitted disease. In recent years, intravenous drug use has become increasingly related to HIV transmission.

Results: Positive HIV test reports across Canada have steadily decreased since 1995. Rates of positive tests in Alberta have varied, but are generally below national rates.

Note: The number of new HIV diagnoses is a function of both HIV incidence (actual new cases) and HIV testing patterns. The number of HIV test reports in a given year includes individuals infected in that year as well as individuals infected in previous years; most individuals will not be diagnosed in the year they are infected. Thus, changes in the numbers and rates of reported positive tests must be interpreted with caution.

Verotoxigenic *E. coli* incidence rate

Figure 10 - Verotoxigenic *E. coli* reported incidence rate per 100,000 population, Alberta and Canada, 1991-2001*



Source: Health Canada -- Communicable disease reports.
*2000 and 2001 data are preliminary and may be subject to change.

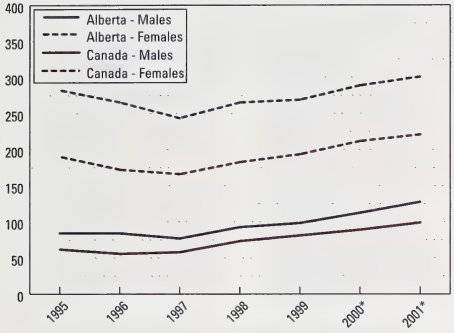
Definition: The rate of new cases reported in a calendar year. To qualify as a "case," the infection must be confirmed by a laboratory.

The *E. coli* incidence rate reflects the importance of both food- and water-borne illnesses.

Results: In Alberta, reported *E. coli* cases have varied over the last decade, increasing since 1995 after a decrease in the early 1990s. In Canada as a whole the *E. coli* rates are generally lower than rates in Alberta.

Chlamydia incidence rate

Figure 11 - Reported genital chlamydia, rate per 100,000 population, Alberta and Canada, by gender, 1995-2001



Source: Health Canada -- Division of Sexual Health Promotion and STD Prevention and Control, Bureau of HIV/AIDS, STD and TB, 2001.
*Data for 2000 and 2001 are preliminary.

Definition: The rate of new cases of reported genital infections in a calendar year. To qualify as a "case," a *C. trachomatis* infection must be confirmed by a laboratory.

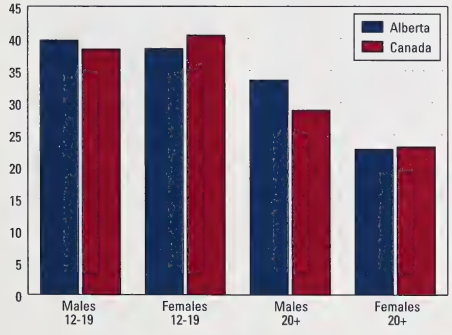
Chlamydia is a common, sexually transmitted disease (STD) that can result in infertility and ectopic pregnancy. Higher incidence rates for this STD suggest that this indicator may be more sensitive to changes in high-risk behaviour; thus, it may be useful for monitoring the effectiveness of primary and secondary prevention.

Results: Reported chlamydia is more prevalent in women than men. Alberta consistently reports rates that are well above Canadian levels, especially for women.

Note: The new molecular diagnostic test introduced around 1997 initially accounted for some of the increase in incidence.

Exposure to environmental tobacco smoke

Figure 12 - Percentage of non-smoking population exposed to second hand smoke, Alberta and Canada, by age group and gender, 2000-2001



Source: Statistics Canada - Canadian Community Health Survey-Cycle 1.1(2000-01).
Note: See note to Figure 6.

Definition: The proportion of the non-smoking population who are regularly exposed to environmental tobacco smoke (ETS), on most days in the month preceding the survey.

This indicator reflects the effectiveness of governments in protecting non-smokers against exposure to tobacco smoke in public spaces. The relationship between ETS and health problems is well documented. Second–hand smoke exposure is linked to increases in mortality from lung cancer and cardiovascular disease; it is also a factor in respiratory illness. Second-hand smoke has serious consequences for children. Smoking during pregnancy is a cause of low birth weight and children living in homes where they are exposed to tobacco smoke have higher rates of asthma and respiratory illness.

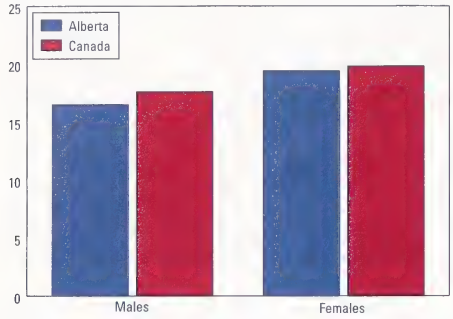
Results: Results for exposure to environmental tobacco smoke (ETS) in Alberta and Canada as a whole among children (aged 12 to 19) are very similar, at about 40 per cent. Exposure to ETS among non-smoking adults is lower than for children, with greater exposure for men than women, especially in Alberta.

Smoking

Definition: The percentage of teenagers (age 12 to 19) who report that they are currently smokers. Current smokers include daily smokers and those who had at least one cigarette in the past 30 days.

Tobacco use is the leading cause of preventable illness and death in Canada. Health Canada estimates that smoking is responsible for more than 45,000 deaths per year. Another estimate suggests that approximately eight out of 10 people who try smoking become habitual smokers. Because of its addictive nature, smoking among teens is of particular concern.

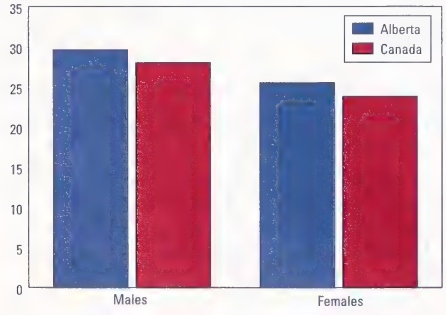
Figure 13 - Percentage of teenagers (age 12-19) who smoked at least one cigarette during the past 30 days, Alberta and Canada, 2000



Source: Statistics Canada - Canadian Community Health Survey-Cycle 1.1(2000-01).
Note: See note to Figure 6.

Results: Percentages of teen smokers in Alberta and Canada as a whole are roughly the same. Teen females report higher percentages of current, daily or occasional smoking compared to males.

Figure 14 - Percentage of the total population, age 12 and over, who smoked at least one cigarette during the past 30 days, Alberta and Canada, 2000



Source: Statistics Canada - Canadian Community Health Survey, Cycle 1.1, 2000-2001.
Note: See note to Figure 6.

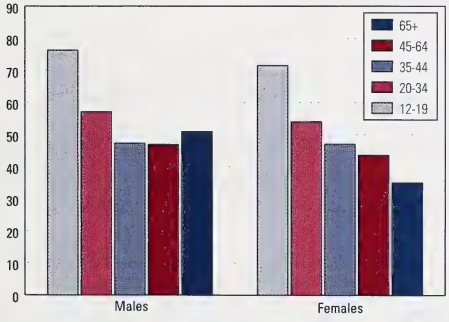
Results: The percentage of current smokers in Alberta (age 12 and over) is slightly higher than the national average. In Alberta and in Canada as a whole, men are more likely to smoke tobacco than women.

Physical activity

Figure 15 - Leisure-time physical activity, percentage moderately or very active, by gender, age 12 and over, Canada and Alberta, 2000

Source: Statistics Canada - Canadian Community Health Survey, Cycle 1.1, 2000-2001.
Note: See note Figure 6.
Note: These results have been adjusted for non-response.

Figure 16 - Leisure-time physical activity, percentage moderately or very active, by age group and gender, age 12 and over, Alberta, 2000



Source: Statistics Canada - Canadian Community Health Survey, Cycle 1.1, 2000-2001.
Note: See note Figure 6.
Note: These results have been adjusted for non-response.

Definition: The percentage of the population aged 12 and over who report a physical activity index of "moderate or very" active.

Maintaining physical activity is associated with a range of health benefits. Many studies have shown that regular physical activity confers major heart health benefits and that inactivity is a major risk factor for heart disease.

The measure of physical activity is based on the individual's responses to questions about the frequency, intensity and duration of their participation in leisure time physical activity.

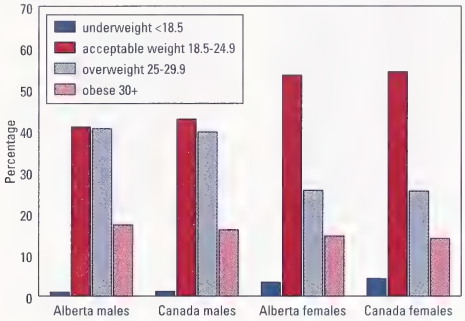
Results: Albertans, both men and women, reported more leisure time physical activity than the general Canadian population. In Alberta, men report somewhat more physical activity than women. Typically, physical activity levels decline with age; however for men (but not women) over age 64 this trend reverses.

Body mass index (BMI)

Definition: The percentages of adults, ages 20 to 64, with body mass indexes in specified categories ranging from underweight to obese. The body mass index is calculated using self-reported weight and height (weight in kilograms divided by height in metres squared). The index is: under 18.5 (underweight), 18.5 to 24.9 (acceptable weight), 25.0 to 29.9 (overweight) and 30 or higher (obese).

BMI is a common method of determining if an individual's weight is in a healthy range. Excess weight is a risk factor for various diseases such as diabetes and heart disease.

Figure 17 - Percentage of population in body mass index (BMI) category, by gender, Alberta and Canada, 2000-2001



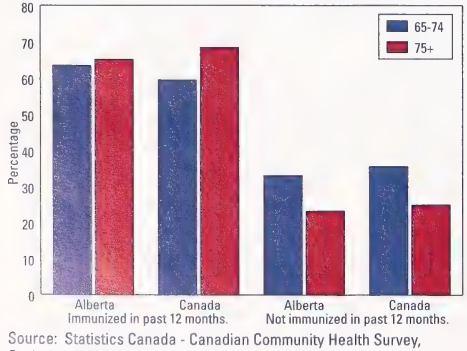
Source: Statistics Canada - Canadian Community Health Survey, Cycle 1.1, 2000-2001.
Note: Population aged 20 to 64 excluding pregnant women and persons less than 3 feet (0.914 metres) tall or greater than 6 feet 11 inches (2.108 metres).
Note: See note for Figure 6.

Results: The distribution of Albertans across the four BMI categories is very similar to the national pattern. For both Albertans and Canadians as a whole, women are more frequently underweight or have acceptable weight, while men are more often overweight.

Immunization for influenza

Definition: The percentage of the population over 65 who report having had a flu shot in the past year.
Influenza among seniors is a significant recurring health problem and frequently requires hospitalization. Since particular strains of influenza can change from year to year, annual immunizations are needed to prevent the illness.

Figure 18 - Percentage immunized for influenza, by age group, household population aged 65 to 74 and 75 plus, Alberta and Canada, 2000



Source: Statistics Canada - Canadian Community Health Survey, Cycle 1.1, 2000-2001.
Note: Results do not include persons in health care residences.
Note: See note for Figure 6.

Results: In general, percentages of influenza immunization in Alberta and Canada as a whole are similar. In 2000, over 60 per cent of Albertans aged 65 or older had received influenza immunization within the past year.

Introduction

There are many factors that can affect service quality: some of these are service availability, timely access, safety, provider competence and responsiveness to individual needs. Outside of specific clinical or research settings the development of general indicators for service quality is very new in Canada, and comparable indicators of service quality at a provincial level are extremely rare.

Several new indicators have been developed for the purposes of comparable reporting. Others are reported here which cannot be compared across jurisdiction due to differences in how information is gathered or in how the services are provided. The comparable indicators reported in this section are a first step toward a comprehensive, comparable system for reporting on health service quality in Canada.

Note on comparability

The federal/provincial/territorial agreement on comparable indicators identified the need for comparable data on wait lists and waiting times for selected health services. At the time of publication however, there were no comparable data from administrative sources. The results reported below for Alberta for cardiac surgery, hip and knee replacement surgery, and radiation therapy for breast and prostate cancer, cannot be compared with similar results from other provinces because of differences in data availability, definition and methods. Also, Alberta is not able at this time to report on the distribution of wait times for these services as defined by the agreement on comparable reporting.

Waiting for services: cardiac artery by-pass graft (CABG)

Estimated number of months to clear current wait list for CABG

Definition: The number of persons waiting at the end of the quarter, divided by the number of surgeries performed during the quarter (multiply by three to convert to months).

Figure 19 - Cardiac surgery[1] on adults in Alberta - Months to clear waiting list, 2001-2002, by quarter

Quarter	Number of persons waiting	Number of adult open heart surgeries performed	Estimated number of months to clear waiting list
Apr-Jun 2001	424	635	2.0
Jul-Sep 2001	538	553	2.9
Oct-Dec 2001	589	622	2.8
Jan-Mar 2002	577	635	2.7

Source: Alberta Health and Wellness quarterly reporting system.
[1]Adult open heart surgeries, primarily consisting of CABG but including some valve, septal and miscellaneous cardiac procedures.

Median wait in days for CABG surgery

Figure 20 - Cardiac surgery on adults in Alberta - Median wait times (ranges in days) by priority category, 2001-2002, by quarter

Definition: The median number of days waited between cardiac catheterization and CABG surgery for adults who received CABG surgery in the period in question. The median is the mid-point of the distribution of wait times. Half the people wait less time than the median, and half wait longer than the median wait time.

Quarter	Emergency	Urgent In-patient	Urgent Out-patient	Planned out-patient
Apr-Jun 2001	0	7-10	93-99	84-109
Jul-Sep 2001	0	8-13	115	107-117
Oct-Dec 2001	0	7-10	112-118	90-150
Jan-Mar 2002	0-1	7-12	122-153	104-143

Source: Alberta Health and Wellness quarterly reporting system.

Results: Waiting times for cardiac surgery in Alberta, as indicated by months to clear the waiting list and by the range of median wait times, have increased somewhat between April 2001 and March 2002. Median wait times in some locations for planned heart surgery are as long as four to five months. The increase over the past year has occurred in the two out-patient urgency categories; the median wait times for urgent in-patients (the patients most in need of surgery) have not changed and emergency cases continue to receive surgery within 24 hours.

Waiting for services: total hip and knee replacement

Estimated number of months to clear current wait list for hip and knee replacement

Figure 21 - Hip and knee replacement surgery[1] in Alberta - Months to clear waiting list, 2001-2002, by quarter

Definition: The number of persons waiting at the end of the quarter, divided by the number of surgeries performed during the quarter (multiply by three to convert to months).

Quarter	Number of persons waiting	Number of joint replacement surgeries performed	Estimated number of months to clear waiting list
Apr-Jun 2001	2428	1164	6.3
Jul-Sep 2001	2624	1078	7.3
Oct-Dec 2001	2754	1322	6.2
Jan-Mar 2002	2710	1305	6.2

Source: Alberta Health and Wellness quarterly reporting system.
[1]Data are collected for hip and knee joint replacement surgeries combined.

Median wait in weeks for hip and knee replacement surgery

Figure 22 - Hip and knee replacement surgery in Alberta - Median wait times (ranges), 2001-2002, by quarter

Definition: The median number of weeks waited between the date the surgeon decided (in consultation with the patient) that surgery was required and the date that surgery was performed.

Quarter	Median wait time ranges (weeks)
Apr-Jun 2001	11-26
Jul-Sep 2001	13-26
Oct-Dec 2001	11-30
Jan-Mar 2002	8-30

Source: Alberta Health and Wellness quarterly reporting system.

Results: From April 2001 to March 2002, waiting times for knee and hip replacement surgeries have remained steady at an estimated six to seven months. Results for median wait times vary from eight to 30 weeks, depending on service location.

Waiting for services: radiation therapy for breast and prostate cancer

Figure 23 - Radiation therapy in Alberta - Average wait times (ranges in weeks), 2001-2002, by quarter

Quarter	Breast	Prostate
Apr-Jun 2001	<1 - 3.5	<1 - 3.5
Jul-Sep 2001	<1 - 3.5	<1 - 3.0
Oct-Dec 2001	<1 - 4.0	<1 - 5.0
Jan-Mar 2002	<1 - 4.5	<1 - 4.5

Source: Alberta Health and Wellness quarterly reporting system. Data provided by the Alberta Cancer Board.

Definition: The average number of weeks between the time that the oncologist decided (in consultation with the patient) that radiation therapy was required and the date that treatment commenced, for the period in question.

Results: Waiting times for radiation therapy for prostate and breast cancer have increased somewhat between April 2001 and March 2002, with wide variations depending on location of service.

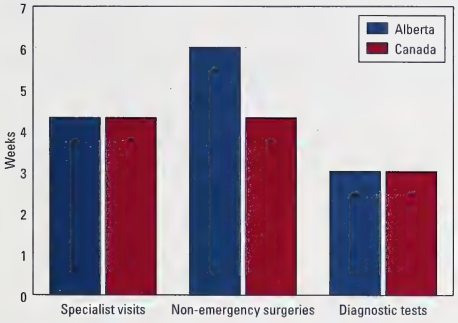
Note: Alberta is not able to report on months to clear current wait list for radiation therapy.

Waiting for services: survey results

Reported median wait time for specialist physician visits[1], diagnostic services and surgery

Definition: The length of time, in weeks, between when the patient is referred for a specialized service and when the patient receives that service, during the 12 months prior to the survey.

Figure 24 - Median waiting times for service (by weeks), population age 15 and over, Alberta and Canada, 2001



Source: Statistics Canada – Canadian Community Health Survey Cycle 1.1 (2000-2001), Health Services Access Survey (supplement to CCHS), Nov. - Dec. 2001.
[1]Specialist physician visits include visits for a new illness or condition only; waiting for diagnostic tests or surgery includes non-emergency cases only.
Note: See note to Figure 6.

Results: In general, the median waiting times reported by Albertans were similar to the Canadian average; the apparent difference in median waiting times for non-emergency surgery is not statistically significant.

Distribution of reported wait times for specialist physician visits, diagnostic services and surgery

Definition: Wait time refers to the length of time between the patient being referred for a specialized service and receiving the service. The indicator is the percentage of those requiring a specialized health service that waited less than one month, between two to three months or more than three months to receive the service, during the 12 months prior to the survey. Patients who have not yet received the service are excluded from the indicator calculation.

Figure 25 - Percentage distribution of waiting times for service, population age 15 and over, Alberta and Canada, 2001

	Less than 1 month Alberta %	Less than 1 month Canada %	1 to 3 months Alberta %	1 to 3 months Canada %	Longer than 3 months Alberta %	Longer than 3 months Canada %
Specialist Visits	42.5	46.4	47.0	41.9	10.5[E]	11.7
Non-emergency Surgeries	40.1	39.5	45.1	41.3	na*	19.2
Diagnostic tests	50.3	54.7	41.3	36.1	8.4[E]	9.1[E]

Source: Statistics Canada – Canadian Community Health Survey Cycle 1.1 (2000-2001), Health Services Access Survey (supplement to CCHS), Nov. - Dec. 2001.
[E]Use with caution, coefficient of variation between 16.6 per cent and 33.3 per cent.
*Data not available.
Note: See note to Figure 6.

Results: The length of time Albertans report waiting for services, as indicated by the distribution of reported wait times, is very similar to the Canadian average. Almost 90 per cent (42.5 per cent plus 47.0 per cent) report receiving specialist services within three months, 85 per cent (40.1 per cent plus 45.1 per cent) report waiting less than three months for non-emergency surgery, and over 90 per cent (50.3 per cent plus 41.3 per cent) receive needed diagnostic tests within three months. The small differences in the estimates between Alberta and Canada are not statistically significant.

Hospital re-admission

Hospital re-admission rates are a measure of the quality of care. The factors affecting hospital re-admissions can include the type of medication being used by a patient, patient compliance with directions, the quality of follow-up care in the community, and the quality and completeness of care during initial hospitalization. Higher than normal re-admission rates should lead health service managers to examine any of the following: hospital practices (e.g., early discharge criteria), the availability of appropriate community services, coordination between hospital and community care providers, and patient education and instruction.

Re-admission rate for acute myocardial infarction (AMI) and pneumonia

Definition: The rate of unplanned re-admissions following admissions for acute myocardial infarction (AMI) and pneumonia, adjusted for risk. A case counts as a re-admission if it is for a relevant diagnosis or procedure and occurs within 28 days after the initial admission to hospital.

Figure 26 - Hospital re-admission – acute myocardial infarction (AMI) and pneumonia, Alberta and Canada

	Risk adjusted readmission rate (percentage)			
	Acute myocardiali infarction	Acute myocardiali infarction	Pneumonia	Pneumonia
	Alberta	Canada	Alberta	Canada
1997/98	6.0	..	3.1	..
1998/99	5.3	..	3.6	..
1999/00	5.4	..	3.2	..
Average (97-99)	5.6	7.3‡	3.3	3.3‡

Source: Canadian Institute for Health Information – Hospital morbidity and discharge abstracts database.
‡ This rate includes only provinces and territories for which comparable data were available. Data for Canada for each year are not available.

Results: The re-admission rates for AMI in Alberta have decreased somewhat since 1997, from six per cent to 5.4 per cent of cases needing to be re-admitted to hospital within 28 days; these rates are lower than the estimated rate for Canada as a whole. The re-admission rates for pneumonia in Alberta have varied from 3.1 per cent to 3.6 per cent, with no clear trend over time. These re-admission rates are similar to the estimated rate for Canada as a whole.

Twenty-four hour a day, seven-day-a-week access to first contact services

Percentage who experienced difficulty obtaining health services

Definition: The percentage of people who required health services for themselves or a family member in the past 12 months and who experienced difficulty obtaining them during regular daytime hours or during evenings, weekends or at night. The survey asked about three service types – routine care, information or advice, and immediate care.

The ability to obtain care when needed is important for maintaining health, preventing health emergencies, preventing the inappropriate use of services (such as using hospital emergency rooms for non-emergencies), or preventing the use of inappropriate services or remedies.

Figure 27 - Percentage of the population age 15 and over reporting difficulties in accessing services (by time of day), 2001

Service type	Regular hours Alberta %	Regular hours Canada %	Evenings & weekends Alberta %	Evenings & weekends Canada %	Middle of the night Alberta %	Middle of the night Canada %
Routine Care	11.2	8.6	10.2	8.1	na*	na*
Information or Advice	11.9	10.1	12.2	10.6	7.4[E]	5.5
Immediate Care	15.5	11.4	20.5	16.4	17.3[E]	12.4

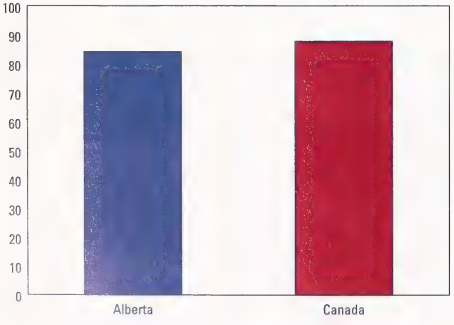
Source: Statistics Canada – Canadian Community Health Survey, Cycle 1.1, (2000-2001), Health Services Access Survey (supplement to CCHS), Nov.-Dec., 2001, Analysis excludes non-response.
[E]Use with caution, coefficient of variation between 16.6 per cent and 33.3 per cent.
*Data not available.
Note: See note for Figure 6.

Results: Depending on the type of service and when the service is needed, between 10 and 20 per cent of Albertans report some difficulty with access. Albertans (about 20 per cent) report the greatest difficulty in obtaining immediate care for minor health problems, especially during the evenings and on weekends. These services would typically be provided by hospital emergency rooms or physician 'walk-in' clinics.

The survey results show that Albertans report somewhat greater access difficulty compared with the Canadian average, although most of the differences are small. Reliable estimates of access difficulty are not available for services needed during the middle of the night; a larger survey sample would be required to obtain these estimates.

Percentage of the population with a regular family doctor

Figure 28 - Percentage of the population age 15 and over who have a regular family doctor, 2001



Source: Statistics Canada – Canadian Community Health Survey – Cycle 1.1 (2000-2001), Health Services Access Survey (supplement to CCHS), Nov.-Dec., 2001. Analysis excludes non-response.
Note: See note to Figure 6.

Definition: The percentage of survey respondents who say "yes" to the question: "Do you have a regular family doctor?"

Establishing an ongoing relationship with a family doctor is important in maintaining health and ensuring appropriate access to health services.

Results: Albertans are less likely to report having a regular family doctor compared to the Canadian average. When asked for reasons why they did not have a regular family doctor, Albertans mostly said it was a matter of choice while only a few cited the availability of physicians as the reason. The Alberta population demographic, which is somewhat younger and more mobile than other Canadians, may help to explain these results.

Home and community care services: home care admissions

Governments support the delivery of some health services to people in their homes as an alternative to providing services in acute care or long term care facilities. There are benefits for both patients and the health care system – people needing care are more comfortable and their life styles and independence are maintained for as long as possible; and, health facility space can be reserved for those with greater health care needs. As more home care programs are implemented, the number of people receiving these services should grow correspondingly. The indicators reported here are intended to show progress as home and community care services are implemented.

Note on comparability

There is no standard definition of home care services used by all provinces and territories. As well, there are differences in the mix of services provided and the administrative systems in place to deliver those services. For these reasons, comparable reporting by provinces on this indicator is not possible. Alberta is not able to report on homecare admissions as agreed by other provinces and territories. Alberta is also not able to report any survey results on utilization of home care services, due to incomplete Alberta survey data. As a substitute indicator we are reporting on the number of home care clients per 1,000 population.

Home care clients per 1,000 population

Definition: The per capita number of clients receiving publicly funded home care services, including home health and home support services.

Results: In 2000-2001, home care provided services to more than 75,000 Albertans who might otherwise require care at a hospital or a long term care facility. About 29 per cent of Albertans aged 75 or older received home care in 2000-2001, enabling them to remain in their own homes and communities (comparable data for Canada are not available for this indicator).

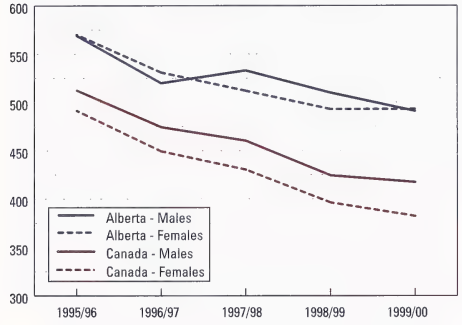
Figure 29 - Homecare clients per 1,000 population, by age group, Alberta, 1998-1999 to 2000-2001

Age group	1998/1999	1999/2000	2000/2001
All ages	24.4	24.8	25.2
75+	288.6	290.2	290.8

Source: Alberta Health and Wellness, Annualized Home Care Information System.

Hospitalization rate for ambulatory care sensitive conditions (ACSC)

Figure 30 - Hospital admissions per 100,000 population for ambulatory care sensitive conditions, by gender, Alberta and Canada, 1995-1996 to 1999-2000



Source: Canadian Institute for Health Information – Hospital morbidity database; Statistics Canada – Canada census.

Definition: This rate applies to in-patient acute care patients and is age-standardized. (Age standardization means that the numbers are adjusted to take into account the differences in age distribution of the general population.) The rate is for cases where appropriate ambulatory care (hospital out-patient or community-based care) may prevent or reduce the need for admission to hospital. This indicator is measured against a standard list of 14 ACSC conditions (diagnostic codes).

Hospitalization rates for conditions that can be treated in the community are one indicator of appropriate access to community-based care. Such conditions include diabetes, asthma, alcohol and drug dependence and abuse, neuroses, depression, and hypertensive disease. Although preventive care, primary care, and community-based management will not eliminate hospital use in all cases, it can be significantly reduced.

Community-based management of these conditions can improve the overall health of the patient, contribute to enhanced health status for the community at large, and make for more efficient use of health system resources.

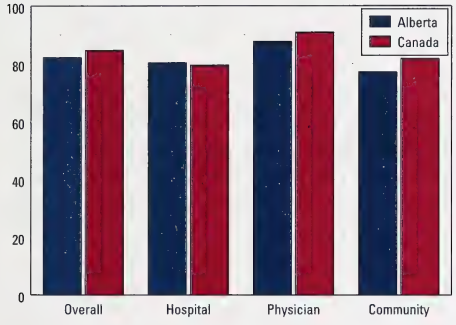
Results: Hospital admissions for ACSC have been decreasing in Alberta and Canada in recent years, reflecting increased health service delivery in home and community settings. Alberta has a higher rate of hospitalization for these conditions compared to the national average, which may be related to the relative difficulty of providing appropriate, quality community-based care in small towns and rural areas.

Patient satisfaction

Definition: The percentage of the population (age 15 and over) who rate themselves as either very satisfied or somewhat satisfied with the way selected services were provided. These consist of overall health care services; hospital services; services from a family doctor or other physician; and community-based services. This applies to individuals who received health care services over a 12-month reference period.

Patient satisfaction is an important indicator of the appropriateness of care and care delivery. Patients who are dissatisfied are less likely to accept the treatment or advice provided and are more likely to need additional services or seek alternative health services. As a result, health outcomes are poorer and health system costs increase.

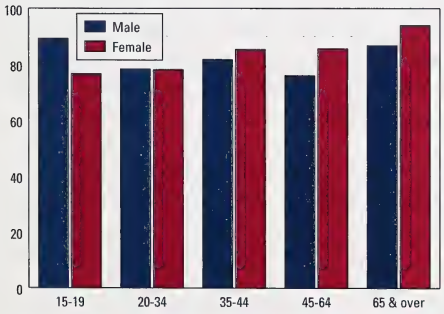
Figure 31 - Percentage of patients age 15 and over who rated themselves as either very or somewhat satisfied with health services, by type of service, Alberta and Canada, 2000-2001



Source: Statistics Canada – Canadian Community Health Survey, Cycle 1.1, 2000-2001.
Note: See note to Figure 6.

Results: Albertans generally report that they are satisfied with the health services they receive. Satisfaction with services received from physicians is higher compared to other service types. Alberta results are similar to the national average for most service types, but Albertans are slightly less satisfied than other Canadians with their community-based services.

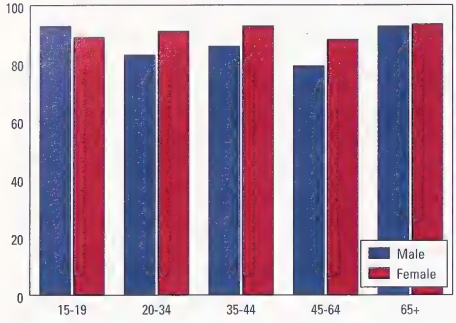
Figure 32 - Percentage of patients age 15 and over who rated themselves as either very or somewhat satisfied with health services overall, by age group and gender, Alberta, 2000-2001



Source: Statistics Canada – Canadian Community Health Survey, Cycle 1.1, 2000-2001.
Note: See note to Figure 6.

Results: Satisfaction with services received is generally high for all groups, but does vary somewhat depending on age and gender. Satisfaction increases with age, especially for women, and women tend to be more satisfied with services than men in the older age groups. For teens, however, young men are more satisfied than young women with the health services they receive.

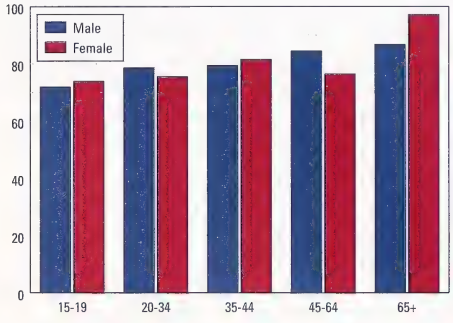
Figure 33 - Percentage of patients age 15 and over who rated themselves as either very or somewhat satisfied with services from a physician, by age group and gender, Alberta, 2000-2001



Source: Statistics Canada – Canadian Community Health Survey, Cycle 1.1, 2000-2001.
Note: See note to Figure 6.

Results: Most Albertans report being either somewhat or very satisfied with the care provided by their physician, for all age groups. Men between the ages of 20 and 64, however, are somewhat less likely than women to report satisfaction.

Figure 34 - Percentage of patients age 15 and over who rated themselves as either very or somewhat satisfied with services received at a hospital, by age group and gender, Alberta, 2000-2001



Source: Statistics Canada – Canadian Community Health Survey, Cycle 1.1, 2000-2001.
Note: See note to Figure 6.

Results: Most Albertans report being somewhat or very satisfied with the care they receive in hospitals. Older patients report greater satisfaction than younger ones: about 92 per cent of Albertans age 65 and older report satisfaction with hospital care, while only about 72 per cent of those age 15 to 19 report satisfaction.

Note: Due to high variability of the estimates, satisfaction with community-based services by age group and gender are not reported.

Introduction

Indicators for health outcomes can reflect the impact of health system programs and services. The indicators in this section have been selected because the link between programs and services and health outcomes has been well established through research.

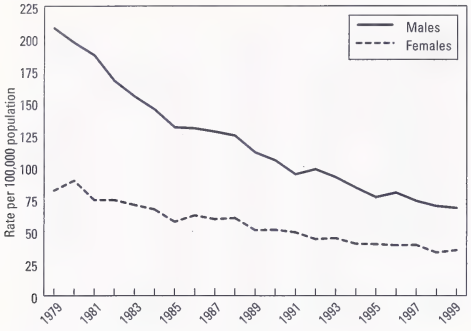
The three major health outcome indicators in this section – rates of incidence of disease (new cases), mortality and survival – are used as indicators for large disease groups of considerable interest to the public: cancer, heart disease and stroke. These indicators can be interpreted together to paint a larger picture of health outcome changes over time.

Survival rates reflect the joint impact of diagnostic services, acute care and longer-term care. They show where and to what extent the health system makes a difference to survival. Another health outcome presented in this section, potential years of life lost (PYLL), reflects the extent of success in preventing premature loss of life due to these specific causes mentioned.

Although some health system interventions save lives, other interventions are designed to improve health-related quality of life. For example, research shows that joint replacement surgery is one health service that clearly improves quality of life. In general, however, data about the positive and negative outcomes of health services for the individual have not been gathered, except in some clinical research settings.

Mortality rates for lung, prostate, breast and colorectal cancer, acute myocardial infarction (AMI), and stroke

Figure 35 - Mortality rates for AMI, by gender, Alberta, 1979-1999



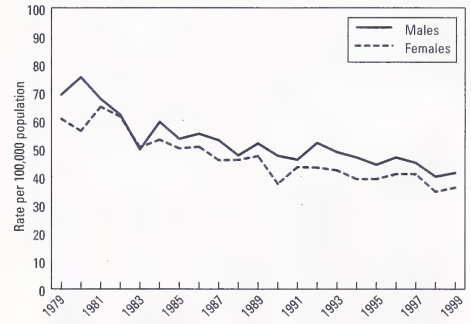
Source: Statistics Canada – Vital Statistics death database and Demography divisions.

Definition: The number of deaths of individuals per 100,000 population where the underlying cause of death is one of those specified. These numbers are age standardized – they are adjusted to take into account the differences in distribution of the general population because mortality is directly linked to age.

Age-standardized trends in the cancer, AMI or stroke death rates may indicate long-term success in reducing deaths from these diseases, compared with other provinces and countries. Lower death rates indicate success in cancer or cardio-vascular disease prevention, detection, and treatment.

Results: Mortality rates for heart disease (acute myocardial infarction) have decreased by more than 50 per cent for both men and women.

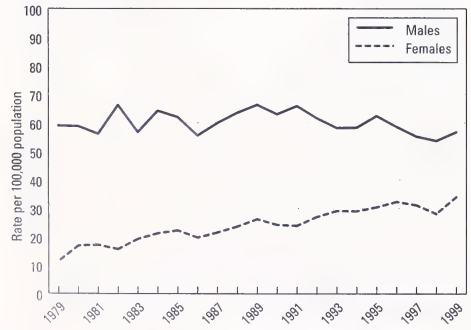
Figure 36 - Mortality rates for stroke, by gender, Alberta, 1979-1999



Source: Statistics Canada – Vital Statistics death database and Demography divisions.

Results: Mortality rates for stroke have declined by more than one-third for both men and women.

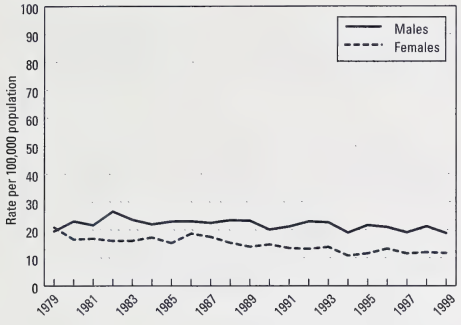
Figure 37 - Mortality rates for lung cancer, by gender, Alberta, 1979-1999



Source: Statistics Canada – Vital Statistics death database and Demography divisions.

Results: Mortality rates for lung cancer have not improved in the past 20 years. The rate has remained constant for men, but has more than doubled for women.

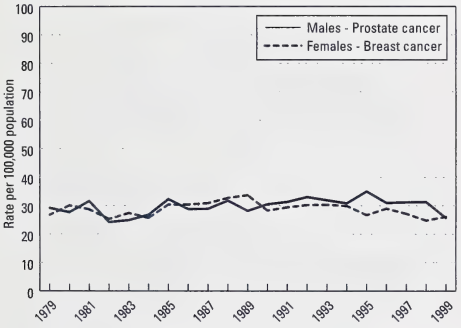
Figure 38 - Mortality rates for colorectal cancer, by gender, Alberta, 1979-1999



Source: Statistics Canada – Vital Statistics death database and Demography divisions.

Results: Mortality rates for colorectal cancer have declined slightly in Alberta over the past 20 years.

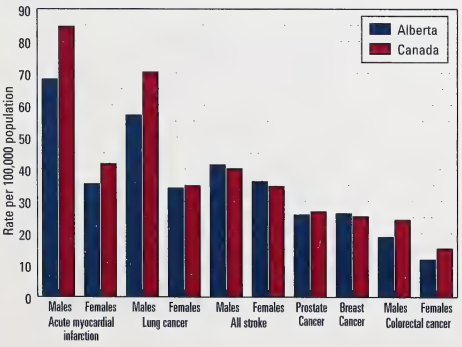
Figure 39 - Mortality rates for breast cancer and prostate cancer, Alberta, 1979-1999



Source: Statistics Canada – Vital Statistics death database and Demography divisions.

Results: Mortality rates among women for breast cancer over the past 20 years do not appear to have changed much. Among men, mortality rates due to prostate cancer have fluctuated over the past 20 years but have not changed significantly.

Figure 40 - Mortality rates – for selected causes of death, by gender, Alberta and Canada, 1999



Source: Statistics Canada – Vital Statistics death database and Demography divisions.

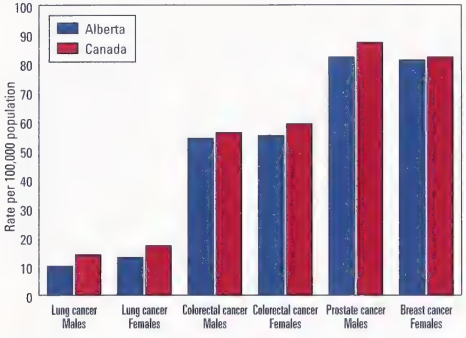
Results: Compared with the national averages, Albertans have a lower mortality rate for heart disease (AMI) and Alberta men have lower lung cancer mortality. Mortality rates for colorectal cancer are slightly lower in Alberta than in Canada.

Survival rates for lung, prostate, breast and colorectal cancer

Definition: This is the ratio of one rate (the number of survivors in the group of cancer patients under study five years after diagnosis) compared to the survival rate of the general population. These relative rates are age-standardized.

Relative survival is the most widely used method for analysing the survival of cancer patients in population studies. Changes in estimated survival rates over time would reflect changes in health outcomes. The relative survival rate is influenced by two factors:
1) the severity (stage) of the cancer at the time of diagnosis
2) the effectiveness of cancer treatment after diagnosis.

Figure 41 - Five-year relative survival rate for cancer cases, age 15 to 99, by gender, Alberta and Canada, 1997



Source: Statistics Canada – Canadian cancer registry, National Cancer Incidence Reporting System; Canadian Vital Statistics death database, and life tables (1990-1992).

For example, an improvement in screening would result in cancers being diagnosed at an earlier (potentially less severe) stage, where treatments are generally more successful and result in higher survival rates. And even if screening does not improve, more effective and successful cancer treatment after diagnosis would also result in higher survival rates.

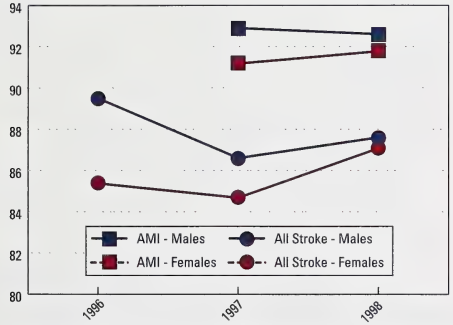
Estimated survival rates are one of the health outcome indicators developed in recent years that focus on the positive results achieved by the health care system. Changes in survival rates over the next five to 10 years will indicate how well the health system is able to treat these serious life-threatening diseases.

Results: Five-year survival rates vary greatly depending on the type of cancer. Survival rates are fairly high for breast cancer and prostate cancer, are lower for colorectal cancer, and lowest for lung cancer. Alberta and Canada survival rates for most cancers are very similar. However, Alberta males have slightly lower survival rates for lung and prostate cancer.

Survival rates for acute myocardial infarction and stroke

Definition: The net survival rate percentage for individuals with a new case of acute myocardial infarction (AMI) or stroke is estimated using the survival rate for the specific cause. In the case of AMI, net survival is measured from at least 365 days after initial admission to hospital, while for stroke, it is measured from at least 180 days after admission. The rates are age-standardized.

Figure 42 - Net survival rate percentage for AMI (365 day), net survival rate percentage for stroke (180 day), age 45 and over, by gender, Alberta, 1996-1998



Source: Statistics Canada – Vital Statistics files death database and person-oriented health information.

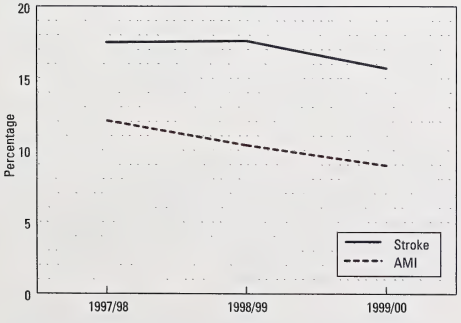
Cardiovascular disease is the major cause of death in Canada, exacting high personal, community and health care costs. Cardiovascular diseases caused 36 per cent of all deaths in 1998, with AMI accounting for 10 per cent and strokes about seven per cent. There has been a decades-long decline in mortality rates for AMI and stroke.

Results: In Alberta, survival rates following a heart attack or stroke are fairly high. In 1998, the 180-day survival rate for stroke is estimated at about 87 per cent, and the 365-day survival rate for heart attack (AMI) is about 92 per cent. (Comparable survival estimates for all of Canada cannot be estimated at this time.)

Thirty day in-hospital mortality rate for stroke and AMI

Definition: The risk-adjusted rate, in percentage, of all causes of deaths in hospitals. This rate is for deaths occurring within 30 days of patients' first admission to an acute care hospital with a diagnosis of stroke or acute myocardial infarction.

Figure 43 - In-hospital mortality rate (within 30 days) for stroke and acute myocardial infarction, Alberta, 1997-1998 to 1999-2000



Source: Canadian Institute for Health Information (CIHI) – Hospital morbidity database.

Stroke is an important cause of death and disability in the Canadian population. An important measure of health outcomes, the risk-adjusted mortality rate can be influenced by a number of factors including emergency treatments, quality of care in hospitals, primary care and prevention. Trends in this mortality rate can reflect changes in quality of care and treatments for stroke.

Acute myocardial infarction, commonly known as heart attack, is one of the leading causes of death. There are effective strategies for treating and preventing AMI. The 30-day AMI in-hospital mortality rate provides information relevant to success of treatment.

Results: In-hospital mortality rates (within 30 days) following a heart attack (AMI) or stroke decreased slightly in Alberta between 1997-98 and 1999-2000. The Alberta rates are slightly lower than the estimated national rate for stroke (19.2 per cent) and heart attack (12.6 per cent). (Comparable rates for Canada are only available as a three-year average, and do not include all provinces.)

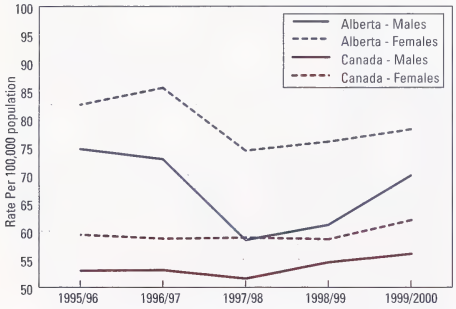
Improved quality of life: hip and knee replacement rates

The intended outcome of most elective surgery is improved quality of life. This is best illustrated by the impacts of hip and knee replacement surgeries, where follow-up research clearly shows significant reductions in pain and stiffness and overall improvement in function.

Total hip replacement rate

Definition: The rate of all hip replacement surgeries (for one or both hips) performed on patients in acute care hospitals. These numbers are age standardized – they are adjusted to take into account the differences in age distribution of the general population because mortality is directly linked to age.

Figure 44 - Hip replacement rates, by gender, Alberta and Canada, 1995-1996 to 1999-2000



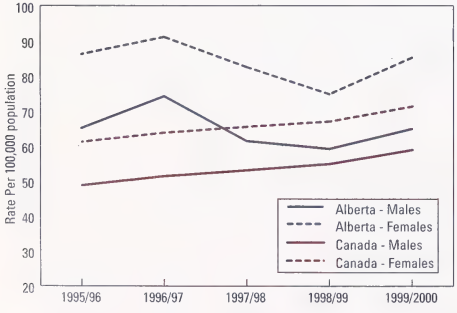
Source: Statistics Canada – Canada census; CIHI – Hospital morbidity database.

Results: The hip replacement rate in Alberta over the past five years has been consistently higher than the Canadian rate. In Alberta, the hip replacement surgery rate has slowly increased in recent years, following a significant drop in 1997-1998. Women consistently have higher hip replacement rates than men.

Total knee replacement rate

Definition: The rate of all knee replacement surgeries (for one or both knees) performed on patients in acute care hospitals. These numbers are age standardized.

Figure 45 - Knee replacement rates, by gender, Alberta and Canada, 1995-1996 to 1999-2000



Source: Statistics Canada – Canada census; CIHI – Hospital morbidity database.

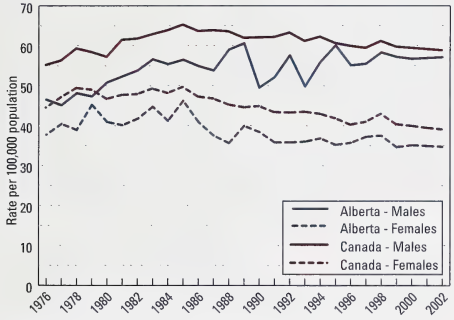
Results: Age-standardized rates for knee replacement surgery are consistently higher in Alberta than the average for Canada, and the rates for this surgery are consistently higher for women than for men. In Alberta, knee replacement surgery rates declined between 1996 and 1999, but may have increased slightly since then.

Incidence rates for lung, prostate, breast, and colorectal cancer

Definition: The number of newly diagnosed primary cancer cases per 100,000 population in a given year for specific sites. These numbers are age standardized. Results for 1998 to 2002 are forecast estimates.

Changes in incidence (new case) rates are affected not only by changes in the actual number of new cases but also by changes in how cancers are detected and diagnosed. These two factors can counterbalance each other. For example, a short-term increase in new cancer cases could reflect either an increase in risk, such as a poor diet, or an improvement in screening. Nonetheless, over the longer term a declining incidence of cancer suggests a positive change in population health, since changes in screening and diagnostic procedures tend to occur only occasionally.

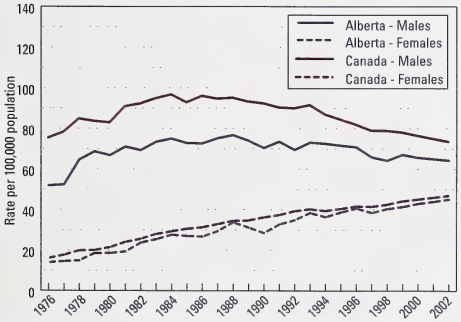
Figure 46 - Incidence rates for colorectal cancer, by gender, Alberta and Canada, 1976-2002



Source: Statistics Canada – Canadian cancer registry, National Cancer Incidence Reporting System, Demography division (population estimates).

Results: In the past 20 years incidence rates for colorectal cancer in Alberta have increased slightly for men, but decreased slightly for women. Alberta rates are generally lower than the Canadian average.

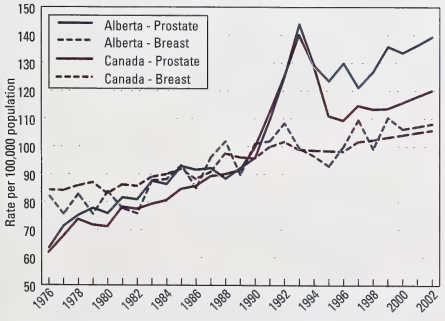
Figure 47 - Incidence rates for lung cancer, by gender, Alberta and Canada, 1976-2002



Source: Statistics Canada – Canadian cancer registry, National Cancer Incidence Reporting System, Demography division (population estimates).

Results: Incidence rates for lung cancer have recently declined for men, but have steadily increased for women over the long term. Alberta rates are generally lower than the Canadian average for men, but not for women.

Figure 48 - Incidence rates for breast and prostate cancer, Alberta and Canada, 1976-2002



Source: Statistics Canada – Canadian cancer registry, National Cancer Incidence Reporting System, Demography division (population estimates).

Results: Incidence rates for breast cancer have remained very similar in Alberta to the Canadian rates. Rates have increased since 1976, though the increase may have slowed somewhat since 1992.

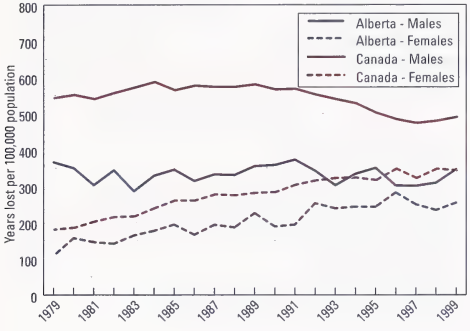
For prostate cancer, incidence rates in Alberta have increased steadily since 1976. In Alberta and Canada as a whole, the rates spiked in 1992-1993 following the widespread availability of a new prostate cancer screening procedure. Since that time prostate cancer incidence rates in Alberta have remained higher than the Canadian rate.

Potential years of life lost (PYLL) due to major causes of death

Definition: Potential years of life lost (PYLL) is the number of years of life "lost" when a person dies from any cause before the age of 75. For example, a person dying at age 25 has lost 50 potential years of life. PYLLs can be estimated for a specific cause of death such as suicide, injury, cancer, AMI or stroke.

As a health indicator, PYLL reflects the level of success in preventing premature (and therefore presumably preventable or postponable) loss of life, with its consequent loss of social and economic productivity. It is an overall indicator of population health and well being and the effectiveness of preventive programs.

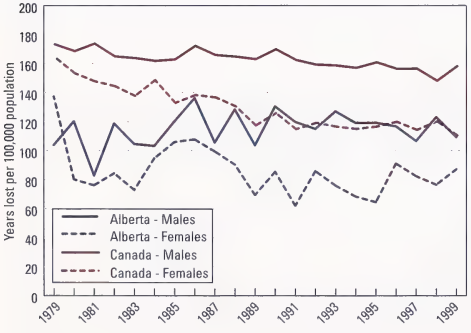
Figure 49 - Potential years of life lost to lung cancer, population aged 0 to 74, by gender, Alberta and Canada, 1979-1999



Source: Statistics Canada – Vital Statistics death database, Demography division (population estimates).

Results: The potential years of life lost due to lung cancer are relatively high, reflecting in part the low survival rate for this disease. Alberta PYLL is lower than the national average, especially for men, and there has been a steady increase in lung cancer PYLL for women, both in Alberta and Canada.

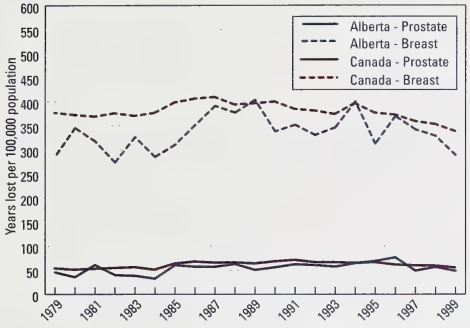
Figure 50 - Potential years of life lost to colorectal cancer, population aged 0 to 74, by gender, Alberta and Canada, 1979-1999



Source: Statistics Canada – Vital Statistics death database, Demography division (population estimates).

Results: The potential years of life lost due to colorectal cancer in Alberta are generally lower than the national rates, and men have higher rates than women. Similar to the trends in colorectal cancer incidence and mortality rates, the PYLL for women appears to be decreasing slightly.

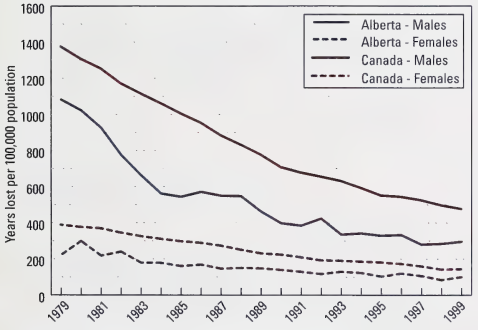
Figure 51 - Potential years of life lost to breast and prostate cancer, population aged 0 to 74, Alberta and Canada, 1979-1999



Source: Statistics Canada – Vital Statistics death database, Demography division (population estimates).

Results: The potential years of life lost due to breast cancer are much higher than for prostate cancer, even though these diseases have similar survival rates. This shows that breast cancer is more closely related to death at a younger age. Breast cancer PYLL in Alberta is slightly lower than the national PYLL for this disease. The Alberta PYLL for prostate cancer is similar to the national rate, and has not changed over the past 20 years.

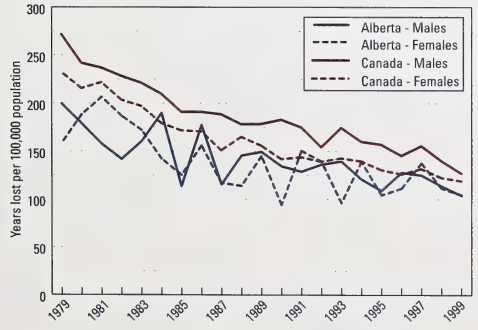
Figure 52 - Potential years of life lost to AMI, population aged 0 to 74, by gender, Alberta and Canada, 1979-1999



Source: Statistics Canada – Vital Statistics death database, Demography division (population estimates).

Results: The potential years of life lost due to heart attacks (AMI) have decreased substantially in the past 20 years, showing trends very similar to AMI mortality rates. Women have lower PYLL for heart attack than men, and Alberta has lower PYLL for this disease than Canada as a whole.

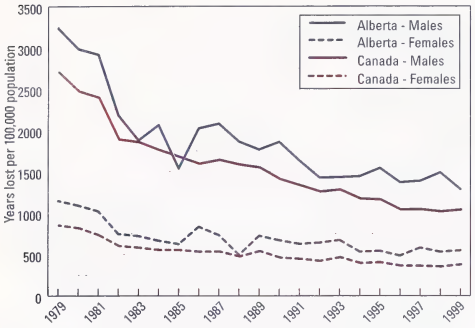
Figure 53 - Potential years of life lost to stroke, population aged 0 to 74, by gender, Alberta and Canada, 1979-1999



Source: Statistics Canada – Vital Statistics death database, Demography division (population estimates).

Results: The potential years of life lost due to stroke have decreased steadily in Alberta and Canada as a whole since 1979, and Alberta PYLL rates are slightly lower than the rates for Canada.

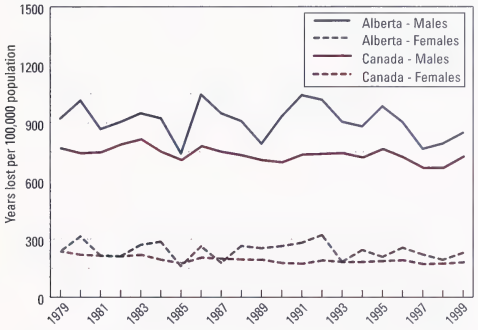
Figure 54 - Potential years of life lost to unintentional injury, population aged 0 to 74, by gender, Alberta and Canada, 1979-1999



Source: Statistics Canada – Vital Statistics death database, Demography division (population estimates).

Results: The potential years of life lost due to unintentional injury are very high, as it is a major cause of death at younger ages. Alberta PYLL for injury is higher than the national average, and PYLL for women is much lower than for men. PYLL for injury has declined significantly since 1979, and the largest decline occurred between 1979 and 1985. This decrease is likely related to the increasing use of seat belts and the introduction of related legislation in many jurisdictions during this time period.

Figure 55 - Potential years of life lost to suicide, population aged 0 to 74, by gender, Alberta and Canada, 1979-1999



Source: Statistics Canada – Vital Statistics death database, Demography division (population estimates).

Results: The potential years of life lost due to suicide in Alberta are consistently higher than the national rate, especially for men. Suicide is another significant cause of death at younger ages. The PYLL rate for suicide can vary considerably from one year to the next, but the long term trend indicates that no clear improvement has occurred since 1979 in Alberta or Canada as a whole.

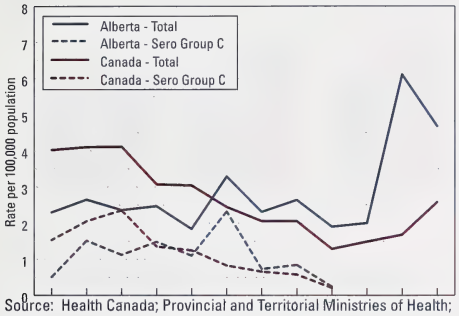
Vaccine-preventable diseases

Invasive meningococcal disease incidence rate

Definition: The rate of new cases reported by year and age for invasive disease with laboratory confirmation of infection. The data reported for 1999, 2000 and 2001 are provisional.

There is considerable research, development and testing being done for new, effective vaccines against invasive meningococcal disease. As a result, there is potential for a significant reduction in new cases over time. Most cases of this disease occur in the newborn-to-19 age group, and immunization programs generally focus on this group.

Figure 56 - Invasive meningococcal disease, by sero-group, Alberta and Canada, 1990-2001



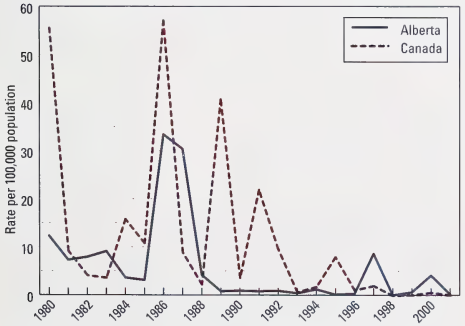
Source: Health Canada; Provincial and Territorial Ministries of Health; laboratories across Canada; the National Microbiology Laboratory, Winnipeg.
*Results by sero group not available.

Results: Incidence rates for invasive meningococcal disease are generally low in Alberta and all of Canada. However, the results for Alberta in 2000 and 2001 are more than twice the normal rate, and illustrate how quickly an outbreak of this disease can affect the rates. Because this disease is highly contagious, it is important for the population to maintain its immunity.

Measles incidence rate

Definition: The rate of new cases reported by year with laboratory confirmation of infection. The data reported for 2001 are provisional

Figure 57 - Measles, Alberta and Canada, 1980-2001



Source: Health Canada – Notifiable disease reporting and enhanced surveillance system; Statistics Canada – Demography division.

Measles can be a serious health condition. Two doses of measles vaccine are required for complete protection; the first is given at 12 months and the second some time prior to school entry, at either 18 months or four-to-six years of age. The elimination of measles will require ongoing, enhanced surveillance and high immunization coverage rates.

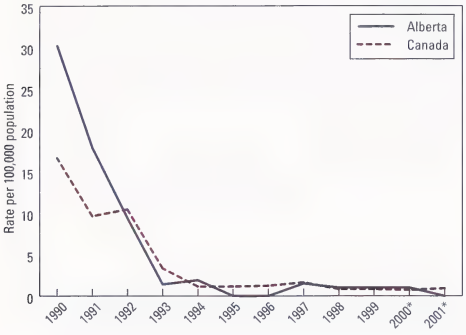
Results: Measles has almost been eliminated in Alberta and Canada as a whole, due to the effectiveness of childhood immunization programs. Occasional measles outbreaks, illustrated by the "spikes" in the graph, tend to occur in communities with little or no immunization coverage.

Haemophilus influenza-b (invasive) disease incidence rate in children

Definition: The rate of new cases reported by year in children under five for invasive disease with laboratory confirmation of infection.

Haemophilus influenza-b or "Hib" was the most common cause of bacterial meningitis and a leading cause of other serious invasive infections in children prior to the introduction of Hib vaccines. Vaccine-preventable cases are now rare. Four doses of the vaccine are given in combination with diphtheria, pertussis, tetanus and polio before the age of two years.

Figure 58 - *Haemophilus Influenza*-b (invasive) in children under age five, rates per 100,000, Alberta and Canada, 1990-2001



Source: Health Canada – Notifiable disease reporting and enhanced surveillance system.
*Data for 2000 and 2001 are provisional.

Results: Infection rates for *Haemophilus influenza*-b have been very low both in Alberta and Canada as a whole since 1993, due to the development and widespread availability of an effective vaccine.

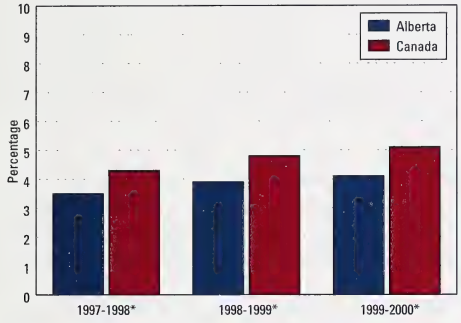
Prevalence of diabetes

Definition: At a specific point in time, the percentage of individuals in the population age 20 and over with diabetes.

The prevalence of diabetes gives an idea of the importance or burden of this disease at a given time and is widely used in public health monitoring and planning.

Diabetes is associated with several serious health problems, including diseases of the circulatory system and blindness. Proper care and management of the disease can help to maintain the health of persons with diabetes and prevent the more severe consequences of the disease.

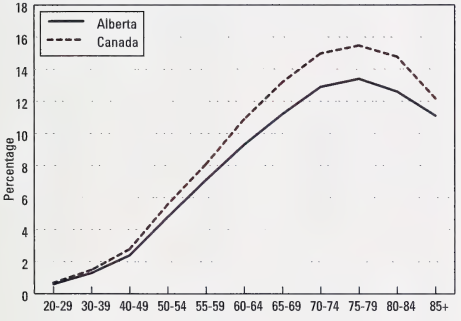
Figure 59 - Diabetes – age-sex adjusted prevalence (percentage) among persons age 20 and older, Alberta and Canada, 1997-1998 to 1999-2000



Source: Health Canada -- National diabetes surveillance system (NDSS).
*Data are provisional.
Note: See note to Figure 60.

Results: The estimated prevalence of diabetes in Alberta is slightly lower than the estimated national average, but has increased steadily in recent years. Note however, that these estimates are provisional. Comparisons between Alberta results and the Canadian average should be made with caution.

Figure 60 - Diabetes – crude prevalence among groups age 20 and older, Alberta and Canada, 1999-2000*



Source: Health Canada -- National diabetes surveillance system (NDSS).
Note: NDSS is a new system and, with the first years of data collection, prevalence may be underestimated. Although the prevalence of diabetes is believed to be increasing, any initial underestimates will tend to exaggerate the increase in prevalence over time. It is expected that data quality will improve in the next few years. Data from 1998-99 and 1999-2000 are preliminary because there have not yet been 730 days of follow-up time for each of these years.
*Data are provisional.

Results: Diabetes prevalence increases significantly with age; as the population ages the prevalence of diabetes will increase unless effective preventive actions are taken. The most effective way to prevent diabetes is through a healthy diet and physical exercise.

Data Tables for Figures Presented in the Report

Many of the results for the comparable health indicators in this report are presented in line graphs or bar graphs. The data that support these graphs are presented in tabular form in Appendix A. These tables are identified by the figure number used to present the corresponding results in the report, and are presented in the order in which they appear in the report.

Figure 1
Life expectancy at birth and at age 65, by gender, Alberta and Canada, 1999

	Alberta	Canada
Males at birth	76.6	76.3
Females at birth	81.7	81.7
Males at age 65	82.0	81.5
Females at age 65	85.5	85.3

Source: Statistics Canada, Vital Statistics, Birth and Death Databases and Demography Division (population estimates)

Figure 2
Life expectancy at birth, by gender, Alberta and Canada, 1979 - 1999

Year	Both		Males		Females	
	Alberta	Canada	Alberta	Canada	Alberta	Canada
1979	75.2	74.9	71.9	71.4	79.1	78.8
1980	75.1	75.2	71.7	71.7	78.9	78.9
1981	75.5	75.6	72.3	72.1	79.2	79.3
1982	75.9	75.8	72.5	72.4	79.7	79.4
1983	76.6	76.1	73.6	72.7	80.0	79.7
1984	76.8	76.4	73.6	73.1	80.3	79.9
1985	76.7	76.4	73.5	73.1	80.1	79.9
1986	76.7	76.6	73.6	73.3	79.9	79.9
1987	77.3	76.9	74.1	73.6	80.7	80.3
1988	77.2	77.0	74.1	73.6	80.5	80.3
1989	77.7	77.3	74.6	74.0	80.9	80.6
1990	77.9	77.6	74.8	74.4	81.2	80.8
1991	78.0	77.8	75.0	74.6	81.2	80.9
1992	78.3	78.0	75.4	74.8	81.2	81.2
1993	78.2	77.9	75.5	74.8	81.0	80.9
1994	78.3	78.0	75.4	75.0	81.3	81.0
1995	78.5	78.2	75.6	75.1	81.4	81.1
1996	78.5	78.4	75.8	75.5	81.2	81.2
1997	78.9	78.6	76.4	75.8	81.4	81.3
1998	79.1	78.8	76.3	76.0	81.9	81.5
1999	79.2	79.0	76.6	76.3	81.7	81.7

Source: Statistics Canada, Vital Statistics, Birth and Death Databases and Demography Division (population estimates)

Figure 3
Disability-free life expectancy at birth and at age 65, Alberta and Canada, by gender, 1996

Region	Gender	Disability-free life expectancy in years at birth	at age 65
Alberta	Males	66.8	10.8
Alberta	Females	69.3	11.7
Alberta	Both sexes	68.0	11.3
Canada	Males	66.9	10.9
Canada	Females	70.2	12.4
Canada	Both sexes	68.6	11.7

Source: Statistics Canada, Vital Statistics, Birth and Death Databases and Demography Division (population estimates)

Figure 4
Infant mortality rate per 1000 live births, greater than 500 grams, Alberta and Canada, 1979 - 1999

Year	Canada	Alberta
1979	10.5	10.8
1980	10.0	12.2
1981	9.1	10.2
1982	8.6	9.6
1983	8.0	7.9
1984	7.7	9.5
1985	7.5	8.0
1986	7.4	8.9
1987	6.9	7.4
1988	6.7	8.2
1989	6.7	7.5
1990	6.2	7.1
1991	5.6	6.0
1992	5.6	6.5
1993	5.5	5.8
1994	5.7	6.3
1995	5.3	5.9
1996	4.8	5.3
1997	4.8	3.9
1998	4.5	4.1
1999	4.4	4.9

Source: Statistics Canada, Vital Statistics, Birth and Death Databases

Figure 5
Percentage of live births with birth weight 500-2499 grams, Alberta and Canada, 1979 - 1999

Year	Alberta	Canada
1979	6.1	5.9
1980	6.1	5.8
1981	6.2	5.8
1982	5.8	5.6
1983	5.5	5.5
1984	5.4	5.5
1985	5.5	5.5
1986	5.5	5.4
1987	5.5	5.5
1988	5.8	5.6
1989	5.9	5.5
1990	5.8	5.5
1991	5.7	5.5
1992	5.8	5.4
1993	5.6	5.6
1994	5.5	5.7
1995	5.9	5.8
1996	6.0	5.7
1997	6.0	5.7
1998	6.1	5.7
1999	5.9	5.5

Source: Statistics Canada, Vital Statistics, Birth Database

Figure 6
Percentage of population, aged 12 and over, reporting very good or excellent health, by gender, Alberta, 1994, 1996, 1998, 2000

Year	Males	Females
1994	71.5	62.2
1996	65.9	61.6
1998	75.1	66.0
2000	62.8	60.3

Source: Statistics Canada, Canadian Community Health Survey, Cycle 1.1, 2000/2001; National Population Health Survey (1994/1995 - 1998/1999)

Figure 7
Percentage of population, aged 12 and over, reporting very good or excellent health, by age groups, Alberta and Canada, 2000

Age Group	Alberta	Canada
12-19	67.2	70.8
20-34	71.4	73.0
35-44	67.2	66.7
45-64	54.9	55.8
65 & over	36.2	36.5

Source: Statistics Canada, Canadian Community Health Survey, Cycle 1.1, 2000/2001; National Population Health Survey (1994/1995 - 1998/1999)

Figure 8
Tuberculosis incidence[1] rates per 100,000 population, Alberta and Canada, 1990 - 2000*

Year	Alberta	Canada
1990	6.1	7.2
1991	6.7	7.2
1992	8.4	7.4
1993	5.8	7.0
1994	6.6	7.1
1995	4.6	6.5
1996	5.0	6.3
1997	5.8	6.6
1998	5.4	5.9
1999	5.0	5.9
2000*	4.4	5.5

[1]Cases of reported new active and relapsed tuberculosis reported by calendar year *2000 Data are provisional until publication of the Tuberculosis Report in Canada - 2000 Annual Report
Source: Canadian Tuberculosis Reporting System (CTBRS)

Figure 9
HIV incidence rate per 100,000 population, by year of test, Alberta and Canada, 1995 - 2001

Year of Test	Canada	Alberta
1995	10.2	6.5
1996	9.4	6.4
1997	8.5	7.6
1998	7.7	4.2
1999	7.3	5.9
2000	6.9	6.1
2001	7.1	5.3

[1]Incidence rate of positive HIV test reports per 100,000 Population
Source: Health Canada, Division of HIV/AIDS Epidemiology and Surveillance

Figure 10
Incidence rate per 100,000 population of verotoxigenic E. coli cases reported, Alberta and Canada, 1991 - 2001*

Year	Alberta	Canada
1991	7.7	7.0
1992	13.4	6.1
1993	5.7	4.1
1994	4.0	4.1
1995	4.6	5.1
1996	5.1	4.2
1997	6.7	4.3
1998	8.8	4.9
1999	6.5	4.9
2000*	9.5	5.8
2001*	8.8	4.0

* 2000 and 2001 Numbers are preliminary and are subject to change.
Source: Health Canada, Communicable Disease Reports

Figure 11
Reported genital chlamydia rates[1] in Alberta and Canada, by Gender, 1995 - 2001

Year	Alberta Male	Canada Male	Alberta Female	Canada Female
1995	84.4	62.0	282.4	190.4
1996	84.2	56.0	265.6	172.4
1997	76.9	58.1	243.6	166.2
1998	92.7	73.6	265.2	182.9
1999	98.3	81.4	268.9	193.7
2000*	112.3	89.1	288.6	211.8
2001*	127.5	99.1	300.8	221.0

[1]Rate per 100,000 population. Population estimates provided by Statistics Canada
*Numbers are Preliminary and subject to change

Source: Division of Sexual Health Promotion and STD Prevention & Control, Bureau of HIV/AIDS, STD & TB, Health Canada, 2001

Figure 12
Percentage of non-smoking[1] population[2] exposed to second hand smoke, by age group and gender, Alberta and Canada 2000/2001

Age group	Gender	Alberta	Canada
12-19	Males	39.7%	38.3%
	Females	38.4%	40.5%
20+	Males	33.5%	28.8%
	Females	22.7%	23.1%

Footnote(s):
[1]Proportion of non-smoking Canadians regularly exposed to environmental tobacco smoke in public places.
[2]Non-smoking population aged 12 and over exposed to second-hand smoke on most days in the month preceding the survey.

Source: Statistics Canada, Canadian Community Health Survey, Cycle 1.1, 2000/2001

Figure 13
Percentage smoking, household population age 12-19, by gender, Alberta and Canada, 2000/2001

Region	Current Smoker [1,2,3]			Daily Smoker [2]		
	Males	Females	Both Sexes	Males	Females	Both Sexes
Alberta	16.5	19.4	17.9	11.5	13.6	12.5
Canada	17.6	19.8	18.7	12.1	13.6	12.9

[1] Current smokers are those who smoke on either a daily or an occasional basis.
[2] Daily smoking refers to smoking at least one cigarette per day for each of the 30 days preceding the survey.
[3] Occasional smoking refers to smoking at least one cigarette during the past 30 days preceding the survey, but not every day.
Note: Results from 1994 to 1999 are not reported due to large coefficients of variation.

Source: Statistics Canada, Canadian Community Health Survey, Cycle 1.1, 2000/2001

Figure 14

Percentage of the population who are current smokers[1] age 12 and over, Alberta and Canada, 2000/2001

Gender	Alberta	Canada
Males	29.6	28.0
Females	25.5	23.8

[1]Current smokers include both daily and occasional smokers.

Source: Statistics Canada, Canadian Community Health Survey, Cycle 1.1, 2000/2001

Figure 15

Leisure-time physical activity: percentage of household population age 12 and over, reporting physically active or moderately active, versus physically inactive, by gender, Alberta and Canada, 1994/1995 - 2000/2001

Fiscal Year		Alberta		Canada	
	Gender	Active	Inactive	Active	Inactive
1994/1995	Males	50.9%	49.1%	46.3%	53.7%
	Females	43.4%	56.6%	37.8%	62.2%
1996/1997	Males	52.2%	47.8%	46.3%	53.8%
	Females	47.3%	52.7%	40.3%	59.8%
1998/1999	Males	55.2%	41.7%	51.1%	48.9%
	Females	48.9%	49.9%	43.0%	56.9%
2000/2001	Males	54.3%	45.6%	50.4%	49.7%
	Females	49.8%	50.2%	42.9%	57.0%

Note: These data have been adjusted for non-response.
Source: Statistics Canada, National Population Health Survey, 1994/1995, 1996/1997, 1998/1999, Canadian Community Health Survey, Cycle 1.1, 2000/2001

Figure 16

Leisure-time physical activity, by age group and gender, percentage active or moderately active, household population age 12 and over Alberta, 2000/2001

Gender	Age group				
	12-19	20-34	35-44	45-64	65+
Males	76.3%	57.1%	47.3%	46.9%	50.9%
Females	71.5%	54.0%	47.0%	43.6%	35.0%

Note: These data have been adjusted for non-response.

Source: Statistics Canada, Canadian Community Health Survey, Cycle 1.1, 2000/2001

Leisure-time physical activity, by age group and gender, household population age 12 and over, Alberta and Canada, 2000/2001

Region	Sex	Age	Physically active	Moderately active	Physically inactive	Physical activity not stated
Alberta	Males	Total, 12+	27.2%	21.4%	40.8%	10.5%
		12-19	49.2%	18.2%	21.0%	11.5%
		20-34	30.6%	20.9%	38.7%	9.7%
		35-44	21.2%	20.8%	46.9%	11.1%
		45-64	19.0%	23.8%	48.5%	8.7%
		65+	21.3%	21.9%	41.8%	15.0%
	Females	Total, 12+	23.8%	23.5%	47.7%	5.0%
		12-19	42.0%	24.4%	26.4%	7.3%
		20-34	25.3%	26.2%	43.8%	4.7%
		35-44	21.3%	24.0%	51.1%	3.6%
		45-64	19.9%	21.6%	53.8%	4.7%
		65+	13.2%	19.7%	61.0%	6.1%
Canada	Males	Total, 12+	23.7%	21.1%	44.2%	11.1%
		12-19	44.2%	19.7%	21.1%	15.0%
		20-34	25.3%	21.1%	42.9%	10.7%
		35-44	19.1%	21.0%	50.0%	9.9%
		45-64	18.0%	21.7%	50.8%	9.5%
		65+	19.5%	21.2%	46.1%	13.2%
	Females	Total, 12+	18.4%	22.1%	53.8%	5.6%
		12-19	32.3%	22.5%	34.6%	10.6%
		20-34	19.7%	23.0%	51.6%	5.7%
		35-44	17.1%	22.8%	56.6%	3.5%
		45-64	16.1%	23.2%	56.4%	4.3%
		65+	11.8%	17.8%	63.8%	6.5%

Source: Statistics Canada, Canadian Community Health Survey, Cycle 1.1, 2000/2001

Figure 17
Body Mass Index[1] (BMI), international standard, by gender, household population[2] age 20 to 64 excluding pregnant women, Alberta and Canada, 2000

BMI	Alberta Men	Canada Men	Alberta Women	Canada Women
Underweight	0.9%	1.1%	3.3%	4.2%
Acceptable weight	40.8%	42.7%	53.3%	54.1%
Overweight	40.4%	39.6%	25.5%	25.3%
Obese	17.2%	16.0%	14.5%	13.9%
Index not stated	0.6%	0.6%	3.4%	2.6%

[1]Body mass index (BMI), international standard, which relates weight to height, is a common method of determining if an individual's weight is in a healthy range based on their height. It is calculated as follows: weight in kilograms divided by height in metres squared. The international standard for index is: under 18.5 (underweight), 18.5-24.9 (acceptable weight), 25.0-29.9 (overweight) and 30.0 or higher (obese).

[2]Population aged 20 to 64 excluding pregnant women and persons less than 3 feet (0.9 metres) tall or greater than 6 feet 11 inches (2.1 metres).

Source: Statistics Canada, Canadian Community Health Survey, Cycle 1.1, 2000/2001

Figure 18
Percentage of population[1] over 65 years, receiving influenza immunization, by age group[1], Alberta and Canada, 2000/2001

	Alberta		Canada	
	65-74	75+	65-74	75+
Reported immunized within past 12 months	63.4%	65.1%	59.4%	68.4%
Reported not immunized within past 12 months (total)	33.0%	23.2%	35.5%	24.9%
- Reported immunized more than 12 months ago	5.6%	8.3%	7.7%	7.6%
- Reported never immunized	27.4%	14.9%	27.8%	17.3%
Immunization not stated	3.6%	11.7%	5.1%	6.8%

[1]Does not include residents in health care institutions.
Source: Statistics Canada, Canadian Community Health Survey, Cycle 1.1, 2000/2001

Figure 24
Median waiting times for service, by weeks, Alberta and Canada, population age 15 and over, 2001

Region	Specialist visits	95% Confidence interval	Non-emergency surgeries	95% Confidence interval	Diagnostic tests	95% Confidence interval
Alberta	4.3	4.0, 4.6	6.0[E]	2.8, 9.2	3[E]	1.8, 4.2
Canada	4.3	3.8, 4.7	4.3	2.9, 5.7	3[E]	1.7, 4.3

Source: Health Services Access Survey 2001: Supplement to the Canadian Community Survey, Cycle 1.1, 2000/2001
E: Use with caution: coefficient of variation between 16.6% and 33.3%

Figure 28
Percentage of population with regular family physician, and reasons for not having a family physician, 2001

Status	Alberta	Canada
With family physician	84.1	87.7
With no family physician	15.8	12.3
Reasons for no family physician:		
- Physician not available	23.6	28.7
- Did not contact one	68.3	62.8
- Other reasons	8.1	8.5

Source: Statistics Canada, Health Services Access Survey; Catalogue 82-575-XIE

Figure 30

Ambulatory care sensitive conditions[1], age-standardized[2] hospitalization rates, by gender, Alberta, and Canada, 1995/1996 - 1999/2000

Fiscal Year	Alberta Male	Canada Male	Alberta Female	Canada Female
1995/1996	569	513	570	492
1996/1997	520	475	531	450
1997/1998	533	461	512	431
1998/1999	510	425	493	397
1999/2000	491	418	493	383

Footnotes:

1Age-standardized in-patient acute care hospitalization rate for conditions where appropriate ambulatory care may prevent or reduce the need for admission to hospital. Includes ICD-9-CM codes 250, 291, 292, 300, 303, 304, 305, 311, 401, 402, 403, 404, 405, 493.

[2]Age-standardized according to the 1991 Canadian population. Rates are per 100,000 population.
Source: Hospital Morbidity Database, CIHI. Census, Statistics Canada.

Figure 31

Percentage of patients 15 years and over who rated themselves as either very satisfied or somewhat satisfied with health services by type of service, Alberta and Canada, 2000/2001

Region	Overall	Hospital	Physician	Community
Alberta	82.1	80.3	87.7	77.1
Canada	84.6	79.5	90.9	81.7

Source: Statistics Canada, Canadian Community Health Survey, Cycle 1.1, 2000/2001

Figure 32

Percentage of patients 15 years and over who rated themselves as either very satisfied or somewhat satisfied with health services overall, Alberta, by age group and gender, Alberta, 2001/2002

Gender	15-19	20-34	35-44	45-64	65+
Male	89.2	78.3	81.7	76.0	86.7
Female	76.6	78.1	85.3	85.6	93.9

Source: Statistics Canada, Canadian Community Health Survey, Cycle 1.1, 2000/2001

Patient satisfaction with any health care services received in past 12 months, by age group and sex, Alberta and Canada, 2000/2001

Gender	15-19		20-34		35-44		45-64		65+	
	Alberta	Canada	Alberta	Canada	Alberta	Canada	Alberta	Canada	Alberta	Canada
Male	85.5	86.7	75.5	78.6	80.1	79.6	85.8	87.3	86.1	91.2
Female	84.9	83.3	82.6	81.1	83.2	82.6	86.6	87.1	92.4	89.5

Source: Statistics Canada, Canadian Community Health Survey, Cycle 1.1, 2000/2001

Figure 33

Percentage of patients who rated themselves as very satisfied or somewhat satisfied with physician care received in past 12 months, by age group and gender, Alberta, 2000/2001

Gender	15-19	20-34	35-44	45-64	65+
Male	92.7	82.7	85.7	78.9	92.6
Female	88.8	90.9	92.7	88.0	93.3

Source: Statistics Canada, Canadian Community Health Survey, Cycle 1.1, 2000/2001

Figure 34
Percentage of patients who rated themselves as either very satisfied or somewhat satisfied with hospital care received in past 12 months, by age group and gender, Alberta, 2000/2001

Gender	15-19	20-34	35-44	45-64	65+
Male	71.9	78.6	79.4	84.4	86.7
Female	73.9	75.5	81.5	76.4	97.2

Source: Statistics Canada, Canadian Community Health Survey, Cycle 1.1, 2000/2001

Figures 35-40
Age-standardized mortality rates, by selected causes[1] of death, by gender, Alberta and Canada, 1979 to 1999

Year	Region	Gender	Acute myocardial infarction (AMI) [410]	All stroke [430-432, 434, 436]	Lung cancer [162]	Colorectal cancer [153-154]	Breast cancer [174][2]	Prostate cancer [185][3]
1979	Alberta	Males	207.8	69.1	59	19.5	.	29.2
		Females	81.6	60.5	11.4	20.9	26.8	.
	Canada	Males	214.6	71.1	71.7	28.6	.	26.7
		Females	94.1	59.3	16.3	23.3	29.8	.
1980	Alberta	Males	196.5	75.3	58.8	23.1	.	27.7
		Females	89.3	56.2	16.9	16.6	30.1	.
	Canada	Males	204.9	67.4	74	28.9	.	25.7
		Females	93.4	56.6	17.1	22.2	29.7	.
1981	Alberta	Males	186.7	67.6	56.1	21.7	.	31.6
		Females	74.2	64.8	17.1	16.9	28.7	.
	Canada	Males	200.3	67.5	73.2	29.2	.	27.1
		Females	88.9	56	17.9	21.6	30.1	.
1982	Alberta	Males	166.9	62	66.2	26.6	.	24.2
		Females	74.2	61.3	15.6	16.1	25.3	.
	Canada	Males	189.9	64.5	77.4	28.2	.	26
		Females	87.5	54.7	19.5	20.3	29.7	.
1983	Alberta	Males	154.8	49.6	56.7	23.6	.	24.9
		Females	70.4	50.4	19.2	16.1	27.4	.
	Canada	Males	180.5	58.9	78.4	27.7	.	26.7
		Females	82.2	51.3	19.9	19.9	30.4	.
1984	Alberta	Males	144.6	59.4	64.2	22	.	26.8
		Females	66.9	53.1	21.2	17.3	25.7	.
	Canada	Males	173	57.9	80.2	28.3	.	27.4
		Females	79.4	49.1	22.2	20.4	30.7	.
1985	Alberta	Males	130.7	53.4	62	23	.	32.3
		Females	57.3	50	22.2	15.3	30.4	.
	Canada	Males	165.2	55.7	78	28.6	.	28.9
		Females	75.5	47.6	23.8	19.8	31.8	.
1986	Alberta	Males	129.9	55.2	55.5	23.1	.	28.8
		Females	62.3	50.6	19.7	18.7	30.4	.
	Canada	Males	158.7	54.3	79	27.2	.	29.4
		Females	75.3	47.4	24	19.7	32	.
1987	Alberta	Males	127.3	52.9	59.9	22.5	.	28.9
		Females	59.3	45.8	21.5	17.5	30.9	.
	Canada	Males	149	52.9	78.6	27.5	.	29.4
		Females	71	44.3	25.3	19.6	31.3	.
1988	Alberta	Males	124.2	47.5	63.5	23.5	.	31.8
		Females	60.2	45.9	23.6	15.4	32.7	.
	Canada	Males	143.4	51.1	81.3	27.6	.	30.7
		Females	67.8	45.2	26.9	18.8	31.4	.
1989	Alberta	Males	111.2	51.8	66.3	23.3	.	28.2
		Females	50.8	47.3	26.2	14	33.7	.
	Canada	Males	134	52.1	81.1	26.8	.	29.7
		Females	62.9	44	27	17.6	31.2	.

Figures 35-40 (cont'd)

Year	Region	Gender	Acute myocardial infarction (AMI) [410]	All stroke [430-432, 434, 436]	Lung cancer [162]	Colorectal cancer [153-154]	Breast cancer [174][2]	Prostate cancer [185][3]
1990	Alberta	Males	105	47.4	63	20.1	.	30.5
		Females	51.1	37.4	24.2	14.8	28.3	.
	Canada	Males	122.7	49.7	79.5	25.7	.	30.1
		Females	60.9	40.8	27.6	17.7	31.3	.
1991	Alberta	Males	94.2	46	65.9	21.2	.	31.3
		Females	49.1	43.4	23.9	13.5	29.4	.
	Canada	Males	117.2	48.2	78.8	25.1	.	31.2
		Females	58	40.7	29.5	16.8	30.1	.
1992	Alberta	Males	98.1	52	61.6	23	.	33
		Females	43.8	43.2	27	13.2	30.2	.
	Canada	Males	113.8	47	77.5	25.9	.	31
		Females	54.4	40.8	29.6	16.6	30.4	.
1993	Alberta	Males	91.9	48.7	58.2	22.7	.	31.9
		Females	44.6	42.2	29.1	13.9	30.3	.
	Canada	Males	111	48.6	77.9	24.7	.	31
		Females	53.1	41.5	31.7	16.6	29.4	.
1994	Alberta	Males	83.8	46.8	58.3	19	.	30.8
		Females	40.2	39.1	29	10.8	29.9	.
	Canada	Males	102.9	47.2	75.5	25	.	30.7
		Females	50.3	39.9	31.9	16.1	30	.
1995	Alberta	Males	76.4	44.2	62.4	21.7	.	35
		Females	39.9	39.1	30.4	11.6	26.7	.
	Canada	Males	98.8	46.9	73.2	25.1	.	31
		Females	50	38.7	31.3	16.2	28.7	.
1996	Alberta	Males	79.9	46.8	58.6	21	.	31
		Females	39.1	40.9	32.3	13.3	29	.
	Canada	Males	96.4	44.9	72.9	24.3	.	29
		Females	48.4	38.4	33.6	15.7	28.9	.
1997	Alberta	Males	73.5	44.9	55.2	19.1	.	31.2
		Females	39.3	40.9	31.1	11.6	27.2	.
	Canada	Males	92.8	44.7	69.9	23.5	.	28.4
		Females	46.6	38.4	32.3	15.2	27.4	.
1998	Alberta	Males	69.5	40	53.7	21.3	.	31.3
		Females	33.5	34.6	28.1	12	24.8	.
	Canada	Males	89.7	41.9	70.1	24.1	.	27.9
		Females	43.6	36.6	34.5	15.7	26.4	.
1999	Alberta	Males	68	41.3	56.8	18.8	.	25.7
		Females	35.3	36.1	34	11.7	26.1	.
	Canada	Males	84.5	40.1	70.3	24.1	.	26.7
		Females	41.6	34.6	34.8	15.2	25.2	.

Sources: Statistics Canada, Canadian Vital Statistics, Death Database and Demography Division (population estimates), 1991 Canadian Census of Population

[1]World Health Organization, International Classification of Diseases, 9th revision (ICD-9).
[2]Age-standardized mortality rates for breast cancer (ICD-9 code 174) were calculated for females only.
[3]Age-standardized mortality rates for prostate cancer (ICD-9 code 185) were calculated for males only.

Notes:

Rates are age-standardized using the direct method, and 1991 Canadian Census of Population. All rates are per 100,000 population.

Counts and rates in this table exclude: deaths of non-residents of Canada; deaths of residents of Canada whose province or territory of residence was unknown; and, deaths for which age of decedent was unknown.

Rates in this table are based on place of residence for indicators derived from death events.

Figure 41
Age-standardized five-year relative survival rate for cancer cases, by sex, population aged 15 to 99, Alberta and Canada, 1997

Type of Cancer	Gender	Region	Number of cases	Number of deaths	Relative survival rate for cancer
Lung cancer	Men	Alberta	607	557	10.0
		Canada	6853	6061	14.0
	Women	Alberta	374	323	13.0
		Canada	3929	3314	17.0
Colorectal cancer	Men	Alberta	503	283	54.0
		Canada	5358	2940	56.0
	Women	Alberta	379	204	55.0
		Canada	4505	2276	59.0
Prostate cancer	Men	Alberta	1084	405	82.0
		Canada	11289	3929	87.0
Female breast cancer	Women	Alberta	1203	307	81.0
		Canada	11008	2850	82.0

Sources: Statistics Canada, Canadian Cancer Registry; National Cancer Incidence Reporting System; Canadian Vital Statistics, Death Database, and life tables

Relative survival compares the observed survival for a group of cancer patients to the survival that would have been expected for members of the general population who have the same characteristics, such as sex, age, province of residence, as the cancer patients. It measures the extra risk of death due to cancer. For example, men diagnosed with prostate cancer in 1992 were 88% as likely to live another five years as were men of the same age and in the same province.

Restricted to cases diagnosed in 1992 that were the first primary cancer for the individual. Excludes the following: subjects with an unknown year of birth or death; subjects younger than 15 or older than 99 years of age at diagnosis; subjects diagnosed through autopsy or death certificate only.

If a patient was diagnosed with more than one invasive tumour in 1992, only the tumour record with the earliest date of diagnosis was retained. Records for individuals who had been diagnosed with a primary invasive cancer before 1992 were excluded.

Figure 42
Age-standardized 365-day net survival rate for acute myocardial infarction (AMI), and age-standardized 180-day net survival rate for all stroke, by gender, population age 45 and over, Alberta, 1996 - 1998

Year	AMI 365-day			All Stroke 180-day		
	Men	Women	Both Sexes	Men	Women	Both Sexes
1996	*	*	*	89.5	85.4	87.8
1997	92.9	91.2	92.4	86.6	84.7	86.0
1998	92.6	91.8	92.5	87.6	87.1	87.5

* Not available

Sources: Statistics Canada, Person-oriented health information and Canadian Vital Statistics, Death Database

Net survival describes the mortality attributable to acute myocardial infarction (AMI) or stroke. Net survival is estimated using cause-specific survival. Survival is at least 365 days for AMI, and 180 days for stroke, after initial admission to hospital.

Estimates are age-standardized to the 1991 Canadian Census of Population.

Figure 43
30-day acute myocardial infarction and stroke in-hospital mortality rates (%), Alberta and Canada, 1997/1998 - 1999/2000

Region	Fiscal Year	Acute Myocardial Infarction (AMI)			Stroke		
		Risk Adjusted Rate	95% L.C.I**	95% U.C.I***	Risk Adjusted Rate	95% L.C.I**	95% U.C.I***
Alberta	1997/1998	12.1	11.0	13.2	17.5	16.1	19.0
	1998/1999	10.4	9.3	11.4	17.6	16.1	19.0
	1999/2000	9.0	7.9	10.0	15.7	14.3	17.1
	3-year average*	10.4	9.8	11.0	16.9	16.1	17.8
Canada	3-year average*	**12.6**‡			**19.2**‡		

* 3-year pooled average: 1997/1998 - 1999/2000
** Lower Confidence Interval
*** Upper Confidence Interval
‡ The average rate includes only provinces/territories for which comparable data were available.

Source: Hospital Morbidity Database, CIHI.

Notes:
Most responsible diagnosis of AMI (ICD-9 410); stroke (ICD-9 430, 431, 432, 434 or 436).
Admission between April 1, and March 1 of the following year (period of case selection ends March 1 to allow for 30 days of follow-up).
Length of stay of 3 or more consecutive days.
Excludes patients who had an AMI/stroke admission within one year prior to the date of the index episode.

Figure 44
Age-standardized total hip replacement rates, by gender, Alberta and Canada, 1995/1996 - 1999/2000

Fiscal Year	Alberta Male	Alberta Female	Canada Male	Canada Female
1995/1996	74.6	82.5	53.0	59.4
1996/1997	72.8	85.5	53.1	58.7
1997/1998	58.4	74.3	51.6	58.9
1998/1999	61.1	75.9	54.5	58.6
1999/2000	69.9	78.1	56.0	62.0

Source: Hospital Morbidity Database, CIHI. Census, Statistics Canada.
Age-standardized rate per 100,000 population of total unilateral or bilateral hip replacement surgery performed on in-patients in acute care hospitals. Age standardized according to the 1991 Canadian population.

Figure 45
Age-standardized total knee replacement rates, by gender, Alberta and Canada, 1995/1996 - 1999/2000

Fiscal Year	Alberta Males	Alberta Females	Canada Males	Canada Females
1995/1996	65.1	86.2	48.9	61.3
1996/1997	74.2	91.1	51.5	63.9
1997/1998	61.4	82.5	53.2	65.6
1998/1999	59.2	74.8	55.0	67.1
1999/2000	64.9	85.2	59.0	71.4

Source: Hospital Morbidity Database, CIHI. Census, Statistics Canada.
Age-standardized rate per 100,000 population of total unilateral or bilateral or bilateral knee replacement surgery performed on in-patients in acute care hospitals. Age standardized according to the 1991 Canadian population.

Figures 46-48

Cancer incidence rate, selected sites of cancer, by gender, age-standardized rate per 100,000 population, Alberta and Canada, 1976 - 2002

Year	Region	Gender	All malignant neoplasms (cancers)	Colorectal cancer	Lung cancer	Female breast cancer	Prostate cancer
1976	Alberta	Males	330.0	46.5	51.9	.	63.4
		Females	276.9	37.7	13.9	82.3	.
	Canada	Males	371.9	55.3	75.7	.	62.1
		Females	294.9	44.6	16.3	84.6	.
1977	Alberta	Males	336.8	45.1	52.3	.	71.3
		Females	264.1	40.4	14.5	75.6	.
	Canada	Males	391.4	56.4	78.6	.	67.9
		Females	306.0	47.2	17.9	84.4	.
1978	Alberta	Males	368.5	48.1	64.6	.	75.2
		Females	289.2	38.9	14.9	82.8	.
	Canada	Males	417.2	59.4	85.1	.	74.0
		Females	319.3	49.5	20.1	86.1	.
1979	Alberta	Males	377.9	47.3	68.7	.	77.8
		Females	286.2	45.2	18.5	75.6	.
	Canada	Males	409.8	58.5	83.9	.	72.0
		Females	313.8	49.1	20.3	87.3	.
1980	Alberta	Males	373.0	50.8	66.8	.	75.9
		Females	291.7	40.9	18.6	83.8	.
	Canada	Males	406.1	57.3	83.2	.	71.4
		Females	305.5	46.8	21.7	83.3	.
1981	Alberta	Males	387.8	52.3	71.0	.	81.6
		Females	289.2	40.1	19.3	77.7	.
	Canada	Males	442.1	61.6	91.2	.	78.5
		Females	328.1	47.8	24.3	86.5	.
1982	Alberta	Males	392.6	53.8	69.3	.	80.9
		Females	286.0	41.7	23.7	75.9	.
	Canada	Males	440.7	61.9	92.6	.	77.8
		Females	321.0	48.0	25.9	86.0	.
1983	Alberta	Males	408.2	56.6	73.4	.	87.6
		Females	308.3	44.7	25.4	87.7	.
	Canada	Males	448.4	63.0	95.2	.	79.6
		Females	332.8	49.4	28.3	89.3	.
1984	Alberta	Males	410.0	55.4	75.0	.	86.4
		Females	310.5	41.2	27.6	88.2	.
	Canada	Males	450.0	64.0	97.1	.	80.9
		Females	329.5	48.3	29.6	90.3	.
1985	Alberta	Males	412.0	56.5	72.8	.	92.9
		Females	325.7	46.2	27.0	93.2	.
	Canada	Males	449.8	65.4	93.2	.	85.0
		Females	335.5	49.8	30.9	92.2	.
1986	Alberta	Males	417.3	54.9	72.6	.	91.6
		Females	309.7	40.9	26.7	85.0	.
	Canada	Males	451.9	63.8	96.4	.	86.1
		Females	324.9	47.4	31.6	88.6	.
1987	Alberta	Males	404.8	53.8	75.2	.	92.2
		Females	313.8	37.5	29.4	96.1	.
	Canada	Males	456.3	64.0	95.0	.	89.6
		Females	330.7	46.9	33.2	91.1	.
1988	Alberta	Males	422.2	59.0	76.7	.	88.4
		Females	331.2	35.6	33.7	101.8	.
	Canada	Males	458.4	63.7	95.5	.	90.4
		Females	336.0	45.4	34.8	97.8	.

Figures 46-48 (cont'd)

Year	Region	Gender	All malignant neoplasms (cancers)	Colorectal cancer	Lung cancer	Female breast cancer	Prostate cancer
1989	Alberta	Males	413.0	60.6	74.0	.	92.2
		Females	315.9	39.9	31.2	89.8	.
	Canada	Males	451.5	62.1	93.6	.	91.8
		Females	330.0	44.7	35.0	96.4	.
1990	Alberta	Males	398.0	49.5	70.4	.	95.9
		Females	318.4	38.4	28.5	101.0	.
	Canada	Males	457.6	62.2	92.7	.	99.8
		Females	333.2	45.0	36.5	96.0	.
1991	Alberta	Males	422.1	52.1	73.5	.	109.6
		Females	317.2	35.8	32.7	101.9	.
	Canada	Males	469.0	62.3	90.7	.	112.3
		Females	337.1	43.5	37.7	100.1	.
1992	Alberta	Males	442.9	57.6	69.5	.	125.1
		Females	337.6	35.8	34.9	108.4	.
	Canada	Males	483.1	63.4	90.3	.	125.3
		Females	341.9	43.4	39.6	102.0	.
1993	Alberta	Males	455.4	49.8	73.1	.	143.9
		Females	329.9	36.0	38.4	99.3	.
	Canada	Males	497.1	61.3	91.9	.	140.4
		Females	341.8	43.6	40.6	99.2	.
1994	Alberta	Males	443.3	55.9	72.5	.	129.1
		Females	331.1	36.8	36.4	96.5	.
	Canada	Males	482.8	62.4	87.3	.	129.4
		Females	340.1	43.1	39.8	98.9	.
1995	Alberta	Males	438.5	60.1	71.6	.	123.5
		Females	322.7	35.2	38.7	92.9	.
	Canada	Males	458.6	60.8	84.8	.	111.3
		Females	338.4	42.0	40.8	98.7	.
1996	Alberta	Males	436.4	55.1	70.8	.	129.9
		Females	337.6	35.7	40.7	100.0	.
	Canada	Males	449.0	60.1	82.3	.	109.7
		Females	336.4	40.4	42.0	98.5	.
1997	Alberta	Males	423.4	55.5	65.9	.	121.1
		Females	343.5	37.2	38.5	109.5	.
	Canada	Males	451.8	59.6	79.4	.	115.0
		Females	340.0	41.1	41.9	102.0	.
1998	Alberta	Males	422.8	58.3	64.2	.	126.8
		Females	338.3	37.5	40.4	99.1	.
	Canada	Males	445.8	61.3	79.3	.	113.7
		Females	345.3	43.1	42.9	102.6	.
1999	Alberta	Males	438.2	57.2	67.1	.	135.8
		Females	342.5	34.6	41.4	110.3	.
	Canada	Males	444.9	59.9	78.5	.	113.9
		Females	344.0	40.5	44.6	103.6	.
2000	Alberta	Males	407.5	56.7	65.7	.	133.6
		Females	342.4	35.1	43.0	106.2	.
	Canada	Males	443.9	59.6	76.9	.	116.0
		Females	345.1	40.1	45.5	104.4	.
2001	Alberta	Males	407.1	56.9	65.0	.	136.3
		Females	344.5	34.9	44.0	107.1	.
	Canada	Males	443.0	59.3	75.4	.	118.2
		Females	346.2	39.6	46.4	105.3	.
2002	Alberta	Males	406.7	57.1	64.3	.	139.3
		Females	346.6	34.7	45.1	108.1	.
	Canada	Males	442.0	59.0	73.9	.	120.3
		Females	347.3	39.2	47.3	106.1	.

Sources: The 1976 to 1997 cancer age-standardized rates are based on cancer incidence data from the Canadian Cancer Registry Database, the National Cancer Incidence Reporting System and Demography Division (population estimates) of Statistics Canada. The 1998 to 2002 age-standardized rates are estimates produced by Health Canada through extrapolation (f) of cancer incidence data from the National Cancer Incidence Reporting System (NCIRS, 1969-1991) and the Canadian Cancer Registry.

The Canada and provincial/territorial totals for all cancers diagnosed between 1976 and 1991 exclude approximately 197,500 cases of non-melanoma skin cancer (ICD-9 173).

Figures 49-55
Potential years of life lost (PYLL), rate per 100,000 population age 0 to 74, by selected causes of death, by gender, Alberta and Canada, 1979 - 1999

Year	Region	Gender	Colorectal cancer	Lung cancer	Female breast cancer	Prostate cancer	Acute myocardial infarction (AMI)	All stroke	Unintentional injuries	Suicides
1979	Alberta	Males	103.9	366.0	.	45.9	1081.9	199.5	3233.0	922.8
		Females	137.3	108.1	285.7	.	222.2	158.5	1146.7	236.3
	Canada	Males	173.6	544.4	.	54.5	1377.4	272.1	2696.3	766.0
		Females	164.9	181.4	377.7	.	391.0	232.7	844.0	232.8
1980	Alberta	Males	120.2	349.9	.	35.6	1022.3	178.8	2984.9	1015.4
		Females	80.2	157.0	345.4	.	299.0	188.2	1091.8	314.0
	Canada	Males	168.9	552.7	.	52.0	1309.3	242.3	2465.1	740.3
		Females	153.7	186.7	373.0	.	378.8	216.0	811.8	215.9
1981	Alberta	Males	82.9	303.0	.	60.9	926.3	157.7	2915.6	868.3
		Females	76.1	145.7	317.9	.	218.0	206.5	1021.9	215.3
	Canada	Males	174.1	541.2	.	53.7	1256.2	237.3	2388.0	745.5
		Females	148.1	203.3	369.7	.	371.2	222.2	726.1	211.3
1982	Alberta	Males	118.7	343.7	.	39.9	776.4	141.8	2180.2	905.1
		Females	84.4	141.4	273.8	.	240.1	186.7	747.0	211.3
	Canada	Males	165.3	558.2	.	55.2	1173.3	228.7	1883.6	786.3
		Females	144.8	216.1	376.5	.	347.4	203.9	595.8	208.1
1983	Alberta	Males	104.6	286.1	.	38.4	663.7	160.3	1878.4	949.8
		Females	72.9	164.3	326.2	.	179.3	172.0	722.1	270.3
	Canada	Males	164.2	573.0	.	56.9	1117.1	221.6	1849.9	812.8
		Females	138.1	217.8	371.0	.	328.0	197.4	575.0	216.3
1984	Alberta	Males	103.3	328.9	.	32.5	562.1	189.8	2063.4	923.7
		Females	94.8	177.0	285.3	.	178.4	142.2	665.9	286.4
	Canada	Males	162.2	588.3	.	51.8	1063.5	210.2	1755.5	747.5
		Females	149.0	240.5	377.3	.	312.9	179.6	547.8	190.5
1985	Alberta	Males	120.2	345.6	.	60.4	544.1	113.6	1538.0	741.7
		Females	106.0	194.2	310.2	.	160.7	125.3	624.6	160.3
	Canada	Males	163.3	565.4	.	64.4	1007.0	191.3	1674.3	705.7
		Females	133.3	261.5	398.8	.	299.9	172.0	547.8	172.3
1986	Alberta	Males	136.3	314.2	.	57.4	571.3	177.4	2023.0	1046.0
		Females	107.8	166.1	351.0	.	168.9	155.9	833.8	262.4
	Canada	Males	172.6	578.1	.	68.5	955.8	191.3	1589.5	777.7
		Females	138.7	261.4	406.8	.	290.9	170.9	527.2	202.6
1987	Alberta	Males	105.6	332.2	.	57.2	550.0	115.4	2079.6	949.2
		Females	99.5	193.4	391.1	.	146.5	117.0	732.9	178.5
	Canada	Males	166.3	574.6	.	66.4	886.1	188.7	1637.6	748.6
		Females	137.1	278.2	410.0	.	275.6	151.3	529.2	196.6
1988	Alberta	Males	128.5	330.6	.	62.8	547.6	145.5	1863.1	909.3
		Females	90.4	186.2	377.2	.	150.7	114.0	495.3	264.9
	Canada	Males	165.1	574.5	.	66.5	834.0	178.5	1579.8	730.5
		Females	130.9	275.5	394.3	.	252.7	165.2	470.6	193.0
1989	Alberta	Males	103.7	354.8	.	50.6	462.5	149.4	1767.6	792.6
		Females	69.4	225.3	403.4	.	148.1	144.9	725.0	253.0
	Canada	Males	163.4	581.1	.	64.4	778.7	178.7	1544.6	705.6
		Females	117.7	282.1	397.1	.	232.5	156.1	535.1	191.5

Figures 49-55 (cont'd)

Year	Region	Gender	Colorectal cancer	Lung cancer	Female breast cancer	Prostate cancer	Acute myocardial infarction (AMI)	All stroke	Unintentional injuries	Suicides
1990	Alberta	Males	130.5	358.0	.	55.9	398.0	134.5	1859.5	933.0
		Females	85.4	188.4	338.0	.	139.4	94.1	670.5	264.1
	Canada	Males	170.2	567.1	.	68.7	709.6	183.1	1405.1	694.6
		Females	126.2	284.2	400.3	.	225.2	142.1	455.7	174.9
1991	Alberta	Males	119.8	372.7	.	62.2	384.5	128.8	1633.6	1042.5
		Females	62.0	193.6	351.5	.	128.9	150.5	626.5	280.9
	Canada	Males	162.8	568.8	.	71.7	679.1	175.2	1330.0	734.3
		Females	115.1	304.4	384.8	.	210.9	144.1	440.5	171.1
1992	Alberta	Males	115.0	342.1	.	60.5	423.6	136.2	1428.0	1019.4
		Females	85.9	252.6	330.4	.	116.8	139.4	641.2	320.9
	Canada	Males	159.6	553.2	.	66.8	656.6	154.5	1254.0	738.4
		Females	119.5	316.4	381.4	.	193.3	139.5	416.0	188.3
1993	Alberta	Males	127.1	302.2	.	57.2	335.0	139.5	1431.7	905.6
		Females	75.9	238.5	345.9	.	129.5	96.1	672.3	182.4
	Canada	Males	159.0	540.5	.	66.8	632.6	174.6	1276.7	741.8
		Females	116.9	322.9	374.1	.	191.0	142.9	459.9	179.9
1994	Alberta	Males	119.1	333.8	.	64.5	341.3	120.8	1444.2	881.7
		Females	68.4	243.2	399.9	.	122.9	139.2	531.6	243.7
	Canada	Males	157.4	529.1	.	65.3	594.2	160.3	1169.0	719.8
		Females	115.3	324.2	396.7	.	186.5	139.8	390.2	180.1
1995	Alberta	Males	119.2	350.1	.	68.8	329.2	108.9	1543.2	985.2
		Females	64.5	242.5	312.5	.	103.2	104.3	541.9	207.9
	Canada	Males	161.2	502.9	.	66.9	552.4	157.2	1158.2	763.6
		Females	116.9	317.4	376.9	.	181.8	130.8	399.6	185.5
1996	Alberta	Males	116.8	301.6	.	76.5	333.0	127.9	1370.4	904.0
		Females	91.1	282.1	369.6	.	119.7	111.3	484.4	255.4
	Canada	Males	156.7	485.1	.	61.8	544.6	145.6	1036.0	721.3
		Females	120.2	348.6	372.8	.	173.8	126.3	359.2	189.7
1997	Alberta	Males	106.6	300.4	.	48.8	279.9	125.0	1388.1	766.0
		Females	82.4	249.3	341.8	.	106.3	137.6	580.5	220.5
	Canada	Males	156.8	474.2	.	60.0	526.2	155.8	1041.3	666.3
		Females	114.6	322.7	359.3	.	160.5	131.9	358.0	170.0
1998	Alberta	Males	123.1	308.7	.	56.5	284.1	113.8	1490.4	793.4
		Females	76.5	233.6	328.6	.	84.0	111.5	530.9	193.1
	Canada	Males	148.4	480.5	.	59.5	498.0	140.2	1013.6	666.1
		Females	120.5	348.2	353.2	.	142.7	122.6	348.4	172.3
1999	Alberta	Males	109.2	346.0	.	48.4	296.0	103.8	1286.5	848.9
		Females	87.2	253.7	288.7	.	100.3	104.4	548.1	228.7
	Canada	Males	158.5	490.9	.	55.6	477.8	127.1	1036.0	724.7
		Females	110.8	344.3	338.5	.	144.9	119.2	374.5	179.4

Source: Statistics Canada, Canadian Vital Statistics, Death Database, and Demography Division (population estimates)

Counts and rates in this table exclude: deaths of non-residents of Canada; deaths of residents of Canada whose province or territory of residence was unknown; deaths for which age of decedent was unknown.

Figure 56
Invasive meningococcal disease: number of cases and rates per 100,000 population <20 years, Canada and Alberta, by serogroup 1990 - 1998, (preliminary data only for 1999 - 2001; total cases and rates)

Year	Region	Pop Estimate*	Sero group C	Rate Sero group C	Non Sero group C	Rate Non Sero group C	Sero group Unknown[1]	Rate Sero group Unknown	Total	Rate
1990	Alberta	782254	4	0.51	6	0.77	8	1.02	18	2.30
1991	Alberta	792753	12	1.51	4	0.50	5	0.63	21	2.65
1992	Alberta	803495	9	1.12	5	0.62	5	0.62	19	2.36
1993	Alberta	810235	12	1.48	5	0.62	3	0.37	20	2.47
1994	Alberta	815343	9	1.10	4	0.49	2	0.25	15	1.84
1995	Alberta	819596	19	2.32	5	0.61	3	0.37	27	3.29
1996	Alberta	824174	6	0.73	10	1.21	3	0.36	19	2.31
1997	Alberta	832593	7	0.84	14	1.68	1	0.12	22	2.64
1998	Alberta	844262	2	0.24	8	0.95	6	0.71	16	1.90
1999	Alberta	848674*	-	-	-	-	-	-	17**	2.00
2000	Alberta	851541*	-	-	-	-	-	-	52**	6.11
2001	Alberta	853811*	-	-	-	-	-	-	40**	4.68
1990	Canada	7670879	119	1.55	79	1.03	112	1.46	310	4.04
1991	Canada	7718154	160	2.07	88	1.14	70	0.91	318	4.12
1992	Canada	7797795	185	2.37	100	1.28	37	0.47	322	4.13
1993	Canada	7859958	108	1.37	97	1.23	38	0.48	243	3.09
1994	Canada	7920489	100	1.26	110	1.39	32	0.40	242	3.06
1995	Canada	7960347	67	0.84	109	1.37	20	0.25	196	2.46
1996	Canada	8004785	54	0.67	84	1.05	28	0.35	166	2.07
1997	Canada	8015769	47	0.59	105	1.31	14	0.17	166	2.07
1998	Canada	8007160	18	0.22	63	0.79	23	0.29	104	1.30
1999	Canada	7979480*	-	-	-	-	-	-	120**	1.50
2000	Canada	7949638*	-	-	-	-	-	-	134**	1.69
2001	Canada	7927399*	-	-	-	-	-	-	205**	2.59

*Statistics Canada, Demography Division, Population Estimates, 1990 updated intercensal, 1991-1995 final intercensal, 1996-1997 final postcensal, updated postcensal 1998-2000, 2001 preliminary postcensal

**Breakdown by serogroup unavailable at this time.

Source: Health Canada Enhanced Surveillance System. Data provided to Health Canada by: Provincial and Territorial Ministries of Health, Laboratories across Canada, and National Microbiology Laboratory, Winnipeg

[1]**Group Unknown**: Isolation and identification or detection of meningococcal bacteria may not be possible in all invasive cases, and data shown above are the best available at the national level.

Figure 57
Measles[1]: reported cases and rates per 100,000 population, Alberta and Canada, 1980 - 2001*

Year	Alberta		Canada	
	Total Cases	Rate per 100,000	Total Cases	Rate per 100,000
1980	269	12.3	13864	56.6
1981	167	7.3	2307	9.3
1982	188	7.9	1064	4.2
1983	218	9.1	934	3.7
1984	86	3.6	4078	15.9
1985	75	3.1	2816	10.9
1986	811	33.4	14941	57.2
1987	740	30.4	2385	9.0
1988	102	4.2	611	2.3
1989	19	0.8	11145	40.8
1990	23	0.9	1033	3.7
1991	20	0.8	6178	22.0
1992	23	0.9	2742	9.7
1993	11	0.4	203	0.7
1994	31	1.1	524	1.8
1995	3	0.1	2361	8.0
1996	8	0.3	335	1.1
1997	245	8.6	584	1.9
1998	1	0.0	12	0.0
1999	17	0.6	29	0.1
2000	123	4.1	199	0.6
2001*	6	0.2	34	0.1

Source: Health Canada, NDSS Data base (1980-1997) & Enhanced Surveillance System 1998 to 2001

* Data for 2001 are provisional.

[1]Since 1998, all measles cases are imported or import-related.

Figure 58
Haemophilus influenzae-b (invasive) in children <5years: reported cases and rates (per 100,000), Alberta and Canada, 1990 - 2001*

Year	Alberta		Canada	
	Cases	Rate per 100,000	Cases	Rate per 100,000
1990	64	30.2	321	16.6
1991	38	17.9	188	9.6
1992	20	9.4	208	10.4
1993	3	1.4	67	3.3
1994	4	1.9	23	1.1
1995	0	0.0	21	1.1
1996	0	0.0	24	1.2
1997	3	1.5	30	1.6
1998	2	1.0	15	0.8
1999	2	1.0	14	0.8
2000*	2	1.0	12	0.7
2001*	0	0.0	16	0.9

Source: Health Canada, NDSS Database
* Data for 2000 and 2001 are provisional

Figures 59-60

Diabetes: crude and age-standardized[1] prevalence by age groups[2] and gender, Alberta and Canada[3], 1997/1998 - 1999/2000

Fiscal Year	Age Group	Alberta			Canada		
		Male	Female	Both	Male	Female	Both
1997/1998*	20-29	0.4%	0.7%	0.5%	0.4%	0.7%	0.6%
	30-39	0.8%	1.3%	1.0%	1.0%	1.4%	1.2%
	40-49	2.2%	1.9%	2.0%	2.6%	2.2%	2.4%
	50-54	4.8%	3.5%	4.2%	5.7%	4.1%	4.9%
	55-59	7.1%	5.2%	6.2%	8.3%	6.0%	7.1%
	60-64	9.1%	6.9%	8.0%	10.7%	8.1%	9.4%
	65-69	10.9%	8.7%	9.8%	12.9%	10.2%	11.5%
	70-74	12.6%	9.8%	11.1%	14.5%	11.7%	12.9%
	75-79	12.8%	10.0%	11.2%	14.8%	12.1%	13.2%
	80-84	12.4%	9.7%	10.8%	14.0%	11.6%	12.5%
	85+	10.7%	8.4%	9.1%	11.5%	9.5%	10.1%
	Crude Total	3.6%	3.2%	3.4%	4.5%	4.1%	4.3%
	Age-Standardized	3.9%	3.3%	3.5%	..	..	..
1998/1999*	20-29	0.4%	0.7%	0.6%	0.5%	0.8%	0.7%
	30-39	0.9%	1.5%	1.2%	1.1%	1.6%	1.3%
	40-49	2.4%	2.1%	2.2%	2.9%	2.4%	2.6%
	50-54	5.3%	3.8%	4.6%	6.2%	4.5%	5.3%
	55-59	7.7%	5.7%	6.7%	9.0%	6.5%	7.7%
	60-64	10.2%	7.4%	8.8%	11.9%	8.9%	10.3%
	65-69	12.0%	9.5%	10.8%	14.1%	11.0%	12.5%
	70-74	13.7%	10.8%	12.1%	15.9%	12.7%	14.1%
	75-79	14.2%	11.1%	12.4%	16.3%	13.2%	14.5%
	80-84	13.8%	10.5%	11.8%	15.4%	12.8%	13.8%
	85+	11.7%	9.3%	10.1%	12.8%	10.6%	11.3%
	Crude Total	3.9%	3.6%	3.8%	5.0%	4.6%	4.8%
	Age-Standardized	4.3%	3.6%	3.9%	..	..	..
1999/2000*	20-29	0.5%	0.7%	0.6%	0.5%	0.9%	0.7%
	30-39	1.0%	1.6%	1.3%	1.2%	1.8%	1.5%
	40-49	2.5%	2.3%	2.4%	3.0%	2.6%	2.8%
	50-54	5.5%	4.1%	4.8%	6.4%	4.7%	5.6%
	55-59	8.3%	5.9%	7.1%	9.5%	6.8%	8.1%
	60-64	10.8%	7.9%	9.3%	12.5%	9.3%	10.9%
	65-69	12.7%	9.8%	11.2%	15.0%	11.6%	13.2%
	70-74	14.5%	11.4%	12.9%	16.9%	13.5%	15.0%
	75-79	15.4%	11.8%	13.4%	17.4%	14.2%	15.5%
	80-84	14.7%	11.3%	12.6%	16.7%	13.7%	14.8%
	85+	13.1%	10.1%	11.1%	13.8%	11.5%	12.2%
	Crude Total	4.2%	3.8%	4.0%	5.4%	4.9%	5.1%
	Age-Standardized	4.5%	3.8%	4.1%	..	..	..

Source: National Diabetes Surveillance System as at July 31, 2002

.. Not available

*Provisional Data

[1]Age-standardized to 1991 Canada Population

[2]Persons 20 years of age and older

[3]Excludes : Nunavut, Northwest Territories, New Brunswick, Newfoundland & Labrador

Appendix B

Data sources

The original source data for this report, comparable health indicators data for other provinces and territories, and related health indicator data not included in this report can be obtained from the sources listed below.

Sources

Statistics Canada: Comparable Health Indicators – Canada, Provinces and Territories:
www.statcan.ca/english/freepub/82-221-XIE/free.htm

Canadian Institute for Health Information (CIHI): Comparable Health Indicators – Canada, Provinces and Territories: www.cihi.ca

Statistics Canada: Access to Health Care Services in Canada, 2001; Statistics Canada, Catalogue 82-575-XIE

Alberta Health and Wellness: Alberta Health and Wellness Quarterly Reporting:
www.health.gov.ab.ca/system/funding/performance/Cancer_Waiting.pdf
www.health.gov.ab.ca/system/funding/performance/Hip_Knee.pdf
www.health.gov.ab.ca/system/funding/performance/Open_Heart.pdf

Related Reports

Canadian Institute for Health Information (CIHI): Health in Canada 2002: www.cihi.ca

Health Canada: Towards a Healthy Future: Second Report on the Health of Canadians, 1999: a report prepared by the Federal, Provincial, Territorial Advisory Committee on Population Health.

Note: Appendix A contains the data used to create the graphs presented in the text.
Data presented as tables in the report are not repeated in Appendix A.